

Evaluation Study of Karnataka Road Development Corporation Limited (KRDCL)



for
Department of Public Enterprises,
M S Building, Bengaluru – 560 001

August 2015

Study by :

Technical Consultancy Services Organisation of Karnataka
(TECSOK)

4th Floor, Basava Bhavan, Basaveshwara Circle, Bengaluru-560 001.

Tel.: 080-22266134 / 152, 41512382, Fax.: 080-22266138

e-mail.: ceo@tecsok.com website : www.tecsok.com

CONTENTS

Chapter No.	Particulars	Page No.
	List of Abbreviations	1-2
	Executive Summary	(i) –(vii)
1	Introduction	1
2	Terms of Reference for the Study	3
3	Profile of KRDCCL	4
4	Management, Organisational set up and Human Resources	10
5	Physical Performance	14
6	Comparison of set objectives V/s. Performed activities	29
7	Financial Performance	32
8	Assessment of Overall Performance	44
9	Benchmarking with similar organizations	50
10	SWOT Analysis	57
11	Capital Restructuring & Possible Divestment	60
12	Action Plan for Improving Efficiency of the Company	61
13	Conclusions & Recommendations	63
Annexure -1 & 2		

List of Abbreviations

ADB	:	Asian Development Bank
AG	:	Audit Report
AIMS	:	Asset Inventory Management System
BBD	:	Benkleman Beam Deflection
BOLT	:	Build Operate Lease and Transfer
BOOT	:	Build Operate Own and Transfer
BOT	:	Build Operate and Transfer
BT	:	Black Top
DPE	:	Department of Public Enterprises
GoK	:	Government of Karnataka
GSRDC	:	Gujarath State Road Development
HUDCO	:	Housing & Urban Development Corporation
IDD	:	Infrastructure Development Department
IRC	:	Indian Road Congress
IWTD	:	Inland
KPCL	:	Karnataka Power Corporation Limited
KRDCL	:	Karnataka Road Development Corporation
K-Ship	:	Karnataka State Highway Improvement Project
KSRTC	:	Karnataka State Road Transport Corporation
KUIDFC	:	Karnataka Urban Infrastructure Development & Finance Corporation
MDR	:	Major District Road
MoA	:	Memorandum and Articles of Association
MORTH	:	Ministry of Road Transport Highway
MPML	:	Mysore Paper Mills Limited
MPRDC	:	Madhya Pradesh Road Development Corporation

List of Abbreviations (contd...)

MSRDC	:	Maharashtra State Road Development Corporation
NH	:	National Highway
OMT	:	Operation, Maintenance & Transfer
PIO	:	Public Information Officer
PPP	:	Public –Private-Partnership
PSEs	:	Public Sector Enterprises
PWD	:	Public Works Department
PWP	:	Public Works in Procurement
QCBS	:	Quality & Cost Based Selection
RMC	:	Ready Mixed Concrete
RTI	:	Right to Information
SAD	:	State Accounts Department
SH	:	State Highway
SOS	:	Strategic Option Study
TECSOK	:	Technical Consultancy Services Organization of Karnataka
ToR	:	Terms of Reference
VGF	:	Viability Gap Funding

** **

Executive Summary

ES-1: Background

Karnataka Road Development Corporation (KRDCL) was established in 1999 to promote surface infrastructure by taking up Road Works, Bridges etc. in the State and to improve road network on BOT/BOOT/BOLT modes. The Department of Public Enterprises (DPE), Government of Karnataka, envisaged taking up Study of performance of Public Sector Enterprises (PSEs) of Government including KRDCL. The Study is aimed at evaluating performance of the company on both physical and financial aspects in order to strengthen the PSE for enabling to perform better.

The company is managed by a Board of Directors chaired by Principal Secretary to Government, PWP and IWID with Members from other organizations. The Company is headed by the Managing Director who is well supported by a team of professionals. The Chief Engineer is overall responsible for execution of road & bridge projects with the coordination of Engineers & staff located at Head office & branch offices. The company has very limited staff of its own and almost all the staff including Engineers are on deputation from other Government departments viz., PWD, State Accounts etc.,

The company undertakes road projects as and when grants are sanctioned from Government/PWD. The number of projects taken up by the Company is directly dependent on government grants. It has also no mandate to own any assets and structures. Once the road works are completed, these would be transferred to Government/PWD along with other structures for further maintenance. Since the company do not have assets of its own, it cannot hypothecate / pledge such properties to financial institutions for raising loans to take up new roads.

The company is constrained from collecting toll charges from the road projects developed by it, resulting in no accrual of income from such projects. The income is only from interest earned on short term deposits and service charges collected. Currently, the State do not have exclusive State Highway Fund, whereas other States viz., Maharashtra, Gujarat, Madhya Pradesh etc., have their own fund meant exclusively for development of road projects. Further, respective road development

companies are allowed to collect toll charges from road projects developed under various PPP models. Even though, KRDCCL has completed many projects under PPP, there is no provision to collect toll charges from such projects. Hence, it is highly dependent on Government grants/assistance for taking up new road projects.

ES-2 : Physical Performance

KRDCCL undertakes road works in two models i.e. EPC and PPP. In addition to new projects, it also undertakes maintenance of roads across the State. Taken up roads, bridges and grade separators and also maintenance of them. In addition to this, projects are also implemented on PPP/BOT mode by the Company.

Under EPC mode, the company has completed 839 kms. roads, 645 bridges and undertook maintenance of roads for a total length of 21,837 kms. Further, 374 kms. of roads and 20 bridge projects are ongoing.

Under PPP mode, it has completed 328.60 kms. roads and a total length of 83 kms. of road projects are ongoing. In addition 895.23 kms. roads are proposed at various locations. Thus, roads under PPP mode account for a total length of 1306.83 kms. Further, it has proposed to take up maintenance of roads under OMT mode for a length of 603 kms.

ES 3 : Financial Performance

The financial performance of the company in the last five years has seen both profits and losses. During the year 2008-09 and 2009-10 the company incurred losses of Rs.565 lakhs and Rs.948 lakhs respectively. However, it has been able to make profit after tax of Rs.285 lakhs, Rs.931 lakhs and Rs.980 lakhs during 2010-11, 2011-12 and 2012-13 respectively. This fluctuations is mainly due to the fact that, there was no uniformity in sanction of grants from the Government every year, resulting in variation income from interest.

The trends in Gross Expenditure indicate that, the major expenses was for payment of salaries to the employees. Other expenditures are for administration, guarantee commission paid to Government of Karnataka, interest on loan etc., which were nominal. The Gross expenditure, which was Rs.1482 lakh in 2008-09 was increased

to Rs.3225 lakhs during 2012-13, indicating an increase of 117% over five years period (which is the reference period for the study). This is due to inclusion of financial costs as per revision of existing procedure.

It is to be noted that, Return on Capital Employed of the company has increased from -0.39% to 5.01% during 2008-09 to 2012-13. Similarly, return on equity also increased from -2.82% to 6.41% during the same period. It is evident from both these ratios that, company could improve its financial performance over the years.

ES 4 : Overall performance

Over all performance of the Company is assessed in terms of various critical parameters viz., project selection, planning, project preparation, implementation, fund allocation, maintenance, steps followed in selection of contractors, monitoring mechanism adopted etc.,

With regard to project selection, it is observed that, projects are taken up and implemented by the Company as per the demand and requirements.

With regard to land acquisition, environment clearances and shifting of utilities, the company is following the required procedures in getting requisite clearances from environment department before start of the projects. Further, it is speeding up land acquisition process and coordinating with different departments for speedy implementation.

With regard to project Preparation, Detailed Project Reports are prepared through its selected project engineering consultants. The DPRs would be based on relevant tests, projection of traffic to designed life, planning of cross drainage works appropriately.

With regard to Project implementation and monitoring, the companies is utilizing its resources to the best possible way to reap the maximum benefits its various road projects. The road projects are implemented with proper planning, scheduling and coordination and is adhering to well developed project management methods.

With regard to Projects on PPP mode, though initiation is made by the Company at there is need for more number of projects to be implemented, ensuring long terms sustainability of the organization. Currently, there is no mechanism of allotment of government lands all along the roads to the PPP concessioner for commercial

development. Such arrangements in PPP mode would enhance life cycle benefits and would attract more such projects.

The company is desired to have its own engineers so that, they can involve fully in execution of projects and ensure completion in time. Inducting engineers on deputation to the company may be discouraged as far as possible.

ES 5: Bench marking with other similar organization

To assess the performance of the company, the same has been bench marked with other similar organizations. For this purpose, the performance of the company is compared with Madhya Pradesh Road Development Corporation (MPRDC).

With regard to projects on BOT scheme, MPRDC has completed 2,311 kms length of roads, 1579 kms length roads are under construction and 864 kms are under tendering stage with a total of **4,754 kms**. Whereas, KRDCCL has completed only 328.60 kms roads so far under PPP-BOT-VGF (toll) mode and another 83 kms are ongoing project under DBFOT-VGF (Toll) mode and another annuity mode, with a total of 895.23 kms. have been proposed under DBFOT-VGF (Toll) mode & Annuity mode BOT mode. Thus, total road under PPP/ BOT mode by KRDCCL is **1306.83 kms**.

Under regular contract projects, MPRDC has completed 1249 kms length of roads, 338 kms length roads are under construction with a total of 1587 kms. Whereas KRDCCL has completed 940 kms roads at different stretches.

With regard to Institutional Developments, there is scope for lot of improvements by KRDCCL to match with MPRDC performance. MPRDC has reduced the staff strength particularly of deputationists resulting in reduced overheads. At MPRDC, there is the mechanism of asset inventory management system in place.

However, In respect of KRDCCL, there is also an environmental cell headed by Environmental Manager and there is scope for strengthening it as a full pledged cell. There is need for asset inventory management system for accounting the details with respect to assets as part of MIS. As such KRDCCL has MIS information system, however, the same may be strengthened to function more effectively.

With regard to sustainability of the Company, it is observed that, MPRDC has adopted adequate revenue generation mechanisms through implementing various projects. It has created State highway fund and separate division for the maintenance of roads and other structures. Further, additional revenue is ensured as it is mandated to collect toll charges from toll plazas and border check post. In addition to this, MPRDC has introduced other attractive revenue generating models viz., OMT system, Innovative financial models for new PPP projects, annual maintenance plans for each road etc.,

In case of KRDC, there is no separate state highway fund created and hence it is constrained from taking up new projects even in the event of stoppage of government grants. It is not mandated to collect toll charges from the projects it develop and not able to generate profits. There is tendency of decrease in grant support from government over the years and sustenance of the organization is becoming difficult.

ES 6 : SWOT Analysis

As per SWOT analysis the main strengths Company is its pool of professional engineers with whose support the company could complete road & bridge projects and also undertook maintenance of roads of about 22,000 kms. The projects have been completed successfully within the estimated cost and time. The company has scope for improving its performance by adopting various both technical and financial measures. The company is constrained from collecting toll from the roads it develop. Hence it could not create corpus funds for taking up new projects, even in the absence of State Highway Funds. This is due to the fact that, the company is fully dependent on government grants / deposits for implementation of the projects.

The income to the company is only from interest earned on short term deposits. Due to fluctuations in the deposits made by the government there is also fluctuations in the income earned by the company. There is need for the company to take up traffic worthy roads and collect toll from such projects. As currently, the company is taking up projects based on demand and requirement, it is constrained from collecting toll from atleast traffic worthy roads as it is not mandated.

The company has several opportunities to take up more projects under PPP mode. Other States have the mechanism of creation of exclusive State Highway Funds for development of roads without depending on Government grants. However, this

mechanism is not created in the State resulting in non taking up of road projects by the Company. There is a decrease in deposit contribution from the government and hence the company is not able to take up new road projects. Under the circumstances, there is a threat of closure of the company due to decrease in grant support/deposits from the government.

ES 7 : Recommendations

Based on the findings, conclusions and discussions had as part of the Study, the followings recommendations are suggested :

a) Short-term practicable recommendations

- To prioritize projects based on need and demand.
- To strengthen an environmental section as a full fledged cell.
- Introduction of asset inventorization and management system for day-to-day monitoring of the operations, administration, revenue generation etc.,
- Development of in-house expertise for various projects, will enable company to save some costs spent for consultancy/outsourcing. Deployment of supervision & quality control consultants having international expertise would help the organization in increasing technical knowledge for their staff.

b) Long-term practicable recommendations

- Providing/allotting government lands all along the roads at strategic locations for commercial development would enable PPP concessioner in increasing income from such projects. These provisions in PPP mode projects would enhance life cycle benefits and would attract more projects under this mode.
- Government may allocate traffic worthy roads to the Company for implementation under BOT/BOLT/PPP mode and allow to collect toll charges for creation of its own revenue base, which will ensure long term sustainability of the company.

c) Recommendations requiring change in policy

- Creation of separate State Highway fund would enable the Company to take up the projects independently without depending on government grant / deposits.
- Ownership of the roads and other assets shall be with the company enabling it to raise loans from financial institutions for taking up more and attractive projects by pledging the same.
- The company shall have its own permanent staff and it is desirable for less dependent on deputation staff for the works.
- Developing border check posts at strategic locations as prevailing in other states would result in increased income to the Company. Indirectly, this will also help in control over loading and damage to the State roads due to heavy loading and reduce unauthorized entries.
- Taking up more number of PPP projects under various modes would enable the company to become less dependent on government grants and sustain on its own in the long run.

** **

Chapter -1: Introduction

- 1.1 Today, the Indian economy is growing by leaps and bounds. In order to facilitate the rapid strides of growth, proper infrastructure is a necessity. One of the most important infrastructure facilities required is that of efficient and affordable transportation. Consequently, the development of roads plays a vital role in sustaining the growth of the economy.
- 1.2 Development of superior infrastructure facilities requires colossal investments and the gestation period is also long for returns to be realized on investments. Due to these limitations, private funds may not be forthcoming in a big way to invest in the infrastructure sector. In such a scenario, the role of the Government assumes a lot of significance. However, the Government also has its own problems when it comes to financing such huge projects.
- 1.3 Therefore, the pace of infrastructure development may not keep up with the pace of the overall development in other sectors of the economy. This tends to adversely affect growth which otherwise could have been all the more rapid and impressive. The solution to this problem lies in attracting private investment in the infrastructure sector besides the projects undertaken by the Government, which will greatly reduce the dependence on budgetary allocations.
- 1.4 It is in this context that, many states in India established their own road development Companies for development of road infrastructure enabling attracting more industrial investments and growth of the economy. Such States who stand in forefront for establishment of such Companies are Gujarat, Maharashtra, Madhyapradesh Karnataka etc.,
- 1.5 Karnataka State established, Karnataka Road Development Corporation (KRDCL) on 21st of July 1999 as a wholly owned Government Company as per the Provisions of the Company's Act, 1956. KRDCL being a company is under the Public Works, Ports & Inland Water Transport Department. This Company was established to promote surface infrastructure by taking up Road Works, Bridges etc., and to improve road network by taking up construction, widening & strengthening of roads,

construction of bridges, maintenance of roads etc., and to take up projects on BOT, BOOT, BOLT schemes. KRDCCL after its establishment has completed number of road projects across the state including BOT/PPP projects on par with similar organizations in the neighbouring States.

- 1.6 The Department of Public Enterprises (DPE), Government of Karnataka, envisaged taking up Study of Public Sector Enterprises (PSEs) of Government including KRDCCL. The Study is aimed at evaluating performance of KRDCCL on both physical and financial aspects of it in order to strengthen the Department to enable to perform better. The Department of Public Enterprises (DPE), Government of Karnataka took a decision to assess the performance of such public sector enterprises (PSEs) through conducting Evaluation Study. KRDCCL is one among the PSEs selected for evaluation study.
- 1.7 DPE has retained Technical Consultancy Services Organization of Karnataka (TECSOK), through tendering process to study performance of KRDCCL and prepare an Evaluation Report thereon. Officers of TECSOK visited KRDCCL and held discussions with Managing Director and other officers. It had made available Annual Reports, Manpower Details, Performance Reports and other information required for the Study.
- 1.8 The Evaluation Study is prepared based on the discussions and information & data collected from KRDCCL and other information availed from secondary sources. TECSOK places on record the cooperation extended by the Managing Director & other officers of KRDCCL during the Study and details are enumerated in the following chapters.

** _ **

Chapter -2 : Terms of Reference for the Study

The Karnataka Road Development Company has submitted a draft Terms of Reference to the Department of Public Enterprises for approval. This is as per the Government Order No.DPE 08 ARU 2013, Bangalore, dtd.8.3.2013, which authorizes DPE for approval of the Draft TOR submitted by the respective PSEs. Accordingly, the draft Terms of Reference submitted by KRDCCL for the Study has been approved by DPE and is as follows :

1. To broadly examine activities performed by the Company with reference to its objectives outlined in the MoA for its creation.
2. Performance of KRDCCL with reference to its set objectives and fulfilment of the same for reference period 2008-09 to 2012-13.
3. Viability & self sustainability of KRDCCL with reference to business model.
4. Benchmarking of financial performance of KRDCCL vis-à-vis one similar organization.
5. Performance in promoting PPP projects (BOT, BOOT, BOLT, BOST, Annuity etc.)
6. Leveraging status of KRDCCL, being a company for mobilizing resources
7. Identification of constraints with respect to the following :
 - Culture of company vis-à-vis PWD extension of activities
 - Organization structure constraints
 - Financial constraints
 - Income generating constraints
 - Viability constraints
8. Suggesting broad ways & means to address the constraints.
9. Conclusions & specific recommendations.

** __ **

Chapter -3 : Profile of KRDCCL

3.1 Background

Karnataka Road Development Corporation (KRDCCL) was incorporated on 21st of July 1999 as a wholly owned Government of Karnataka Company as per the Provisions of the Company's Act, 1956 and under the administrative control of the Public Works Department.

The Company was established to promote surface infrastructure by taking up Road Works, Bridges etc. It was mandated to improve road network by taking up construction, widening & strengthening of roads, construction of bridges and maintenance of roads through BOT, BOOT, BOLT modes.

3.2 Vision

To provide effective transport system by developing safe road and bridge network as per IRC & MORTH guidelines.

3.3 Mission

To provide smooth & safe infrastructure for road transportation of goods and citizens.

3.4 Objectives as per MoA

The objectives of establishing the company are as follows :

1. To identify and promote road infrastructure schemes / projects under BOT programme or otherwise and to appoint any government agency or any private consultant in order to collect data and information and to carry out detailed survey and prepare feasibility report and detailed estimate of the projects identified and to carry out the financial and economic viability of such projects.
2. To facilitate the BOT entrepreneur to decide, levy and collection of toll / service charges on all types of vehicles, and good using the highways, roads, paths,

streets, sideways, underground railroads, alleys, courts, pavements built or otherwise maintained and to decide the toll rates during the concession period under the BOT and such other schemes.

3. To adopt appropriate standards and specifications for the construction and maintenance of road infrastructure projects and enforce modern quality assurance procedures.
4. To undertake the construction and subsequent maintenance of the existing road infrastructure projects executed by the State Government from its funds and to retain the right of levy and collection of toll service charges on such projects.
5. To enter into arrangement with the Government of Karnataka and/or any State or Central Government Undertaking or Municipal or local authority or otherwise which may seem conducive to the Company's objects or any of them and to obtain from any such Government, Corporation or Authority any concession, grants or decree, rights or privileges whatsoever which the Company may think fit or which may seem to the Company capable of being turned to account and to comply with work develop, carry out, exercise and turn to account any such arrangements, concessions, grants, decrees, rights or privileges.
6. To apply or promote and obtain any Act of Parliament, charter, privilege, concession, license or any authorization of any Government State or municipality provisional order or license of the Board of Trade or other authority for enabling the company to carry on any of its objects into effect or for extending any of the powers of the company to carry on any of its objects into effect or for extending any of the powers of the Company or for effecting any modification of the constitution of the Company.
7. To enter into, make and perform contracts and arrangements of every kind and descriptions on such terms and conditions, which may include that the contractors will be allowed to derive benefits such as advertisement rights, road side plantations, motels, with corporate body, municipality, body public, territory, province, State Government or colony or dependency thereof, without limit as to amount and to obtain from the Government or authority any rights, privileges, contacts and concessions which the Company may deem desirable to

obtain and to carry out, exercise or comply with any such arrangements, rights privileges, contracts and concessions.

8. To enter into partnership or into any arrangements for sharing profits, union interest, cooperation, joint venture, reciprocal concession or otherwise, with any person or company or companies carrying on or engaged in or about to carry on, or engage in any business or transaction which this company is authorized to carry on, engage in or any business of transaction capable of being conducted so as directly or indirectly to benefit this company. And to, guarantee the contacts, or or otherwise assist, any such person firm or company and to take or otherwise acquire shares and securities of any such company and to sell, hold, reissue, with or without guarantee, or otherwise deal with the same.
9. To purchase, take on lease, or otherwise acquire and hold either solely or jointly with others, any movable or other properties and any rights or privileges, which the Company may think necessary, expedient or convenient for the purpose of its business
10. To sell, dispose of or transfer the business, property and / or undertaking of the Company or any part thereof for any consideration which the company may deem fit to accept and in particular for shares, stock debentures, debentures stock, bonds or securities of any other company or companies for the purpose of its or their acquiring all or any of the property, right or liabilities of this company or for any other purpose which may seem calculated to benefit this Company.
11. To sell, improve, manage, develop, exchange, lease, mortgage, dispose of, turn to account or otherwise deal with all or any part of the property and rights of the Company
12. To transfer, if deemed necessary, after a specified period any road highway bridge infrastructure projects to Government, State Government undertaking or municipal or local authority
13. To let-out on lease or on hire all or any of the property of the Company either immovable or movable

14. To raise funds necessary for the above and other allied objects, by issue of share capital, securing loans from government and other sources, including financial institutions and banks on reasonable rate of interest, to arrange for this utilization and proper repayment, to obtain the grants available from the Central or / and state government to achieve the aforesaid objects and to raise the funds in the form of loans from Asian Development Bank, World Bank and other financial institutions.
15. To borrow or raise money from the issue of or upon bonds, debentures, bills of exchange, promissory notes or other obligations or securities of the Company, or by mortgage, hypothecation, pledge or charge of all or any part of the property of the Company or of its uncalled capital or in such other manner and their appurtenances.
16. To open current, savings, fixed deposit, overdraft or other accounts with any bankers and pay into and draw money from such accounts and draw, accept, endorse, discount, execute, issue and negotiate cheques, bills of exchange, promissory notes, debentures and other negotiable or transferrable instruments (but not to do the business of banking as defined in the Banking Regulations Act, 1949 (Central Act 10 of 1949))
17. To receive money from the State Government and the Central Government or other authorities for carrying out the functions of the Company. However, the company shall not carry on any banking or insurance business.
18. To lend and advance or give credit to such persons or companies and on such terms as may seem expedient, and in particular to customers and others having dealings with the company and to guarantee the performance of any contract or obligations and the payment of money to any such persons or companies, and generally to give guarantees and indemnities.
19. To invest any money of the Company not for the time being required for any of the purpose of the Company in such investments (other than shares or stocks in the Company) as may be considered proper and to hold or otherwise deal with such investments.

20. To employ brokers, commission agents and underwriters for any issue of shares debentures or any other securities of the company and remunerate such person for their services by payment in cash or in any other manner allowed by law.
21. To establish or promote or concur in establishing or promoting any company or companies for the purpose of acquiring all or any of the property, rights and liabilities of the company and to place or guarantee the placing of underwrite, subscribe for or otherwise acquire all or any part of the shares debentures or other securities of any such other company
22. To apply for, purchase, otherwise acquire, and protect and renew in any part of the world any patents, patent rights, brevets, D'invention, trademarks, design, license and the like conferring any exclusive or non-exclusive or limited right to their use, or any secret or other information as to any intervention which may seem capable of being used for any of the purpose of the Company or the acquisition of which may seem calculated directly or indirectly to benefit the Company and to use exercise, develop or grant linceses in respect of, or otherwise turn to account the property rights or information so acquired, and to expand money in experimenting upon, testing or improving any such patents, inventions or rights.
23. To create any reserve fund, sinking fund, insurance fund or any other special fund whether for depreciation or for repairing, improving extending or maintaining any of the property of the Company or for any other purpose conducive to the interest of the Company
24. To employ and source engineers, mechanics, masons, designers, carpenters, painters, electricians and other technicians, accountants, clerks, other officers and laborers from the existing manpower with the Public Works Department, on deputation basis or otherwise, as may be found necessary for the efficient handling and carrying on the business of the company and to employ and source the remaining manpower requirement directly as employees or consultants.
25. Employ and remunerate experts to investigate and examine the conditions, prospects, value charter and circumstances of any business or industrial concern and undertaking and generally of any assets property or rights.

3.4 Capital Structure

The capital structure of KRDC is as follows :

Authorised share capital : Rs.510 crores

Subscribed paid up share capital : Rs.260 crores

** _ **

Chapter-4 : Management, Organizational Set up and Human Resources

4.1 Management

The KRDCL is managed by a Board of Directors chaired by Principal Secretary to Government PWP & IWID. The composition of Board of Directors is as follows :

Sl. No.	Particulars	Designation
1	Principal Secretary to Government PWP & IWID	Chairman
2	Principal Secretary to Government, DPE	Director
3	Principal Secretary to Government, IDD	Director
4	Secretary to Government Finance Department (Expenditure)	Director
5	Managing Director, KRDCL	Managing Director
6	Secretary to Government, PWP & IWTD	Director
7	General Manager (Projects) - HUDCO	Director
8	Professor (Retd.,)	Director
9	Engineer-in-Chief (Retd.,)	Director
10	Superintending Engineer (Retd.,)	Director

4.2 Organisational Setup

KRDCL is a Government of Karnataka undertaking established during 1999 with the objective of promoting road infrastructure schemes / projects across the State. The Company headed by Managing Director is supported by a team of professionals. The team is working under the guidance of the Board of Directors and also the Managing Director. Next to the Managing Director, the chief engineer, working in the second line is responsible for implementation of various projects. The Chief Engineer is assisted by one technical assistant (at Head Office) and four executive engineers located at four branch offices. Two of them function from Bangalore and remaining two from Gulbarga & Hubli. Further, there are three divisional engineers located at Hassan, Mysore and Davanagere.

The Chief Engineer is overall responsible for execution of various road projects / schemes with the coordination of Engineers and supporting staff located at Head Office and branch offices. All Engineering & Accounts staff are on deputation from PWP & IWTD and organizations like KPCL, MPML, SAD and other managerial staff are on contract basis. In addition to this, there are four Executive Engineers function from Bangalore, Gulbarga & Hubli. Two Executive Engineers, i.e. (i) Executive Engineer (Bridges) and (ii) Executive Engineer (Roads) function from Head Office, Bangalore. The remaining two Executive Engineers function from Gulbarga and Hubli offices. These posts are also contractual & each regional officer is assisted by other staffs, who are appointed on casual basis. The present organization structure of the Company is enclosed at Chart-4.1.

Organization Chart - 4.1

4.3 Human Resources

The permanent working strength of the Company is minimal as most of the employees are on deputation from various departments viz., PWD, State Accounts etc. Some of the employees are also working on contract basis. The staffing pattern at head office and branch offices is furnished below:

Sl. No.	Particulars	Persons deployed
I	Head Office, Bangalore	
1	Chief Engineer	1
2	Executive Engineer (Roads)	1
3	Executive Engineer (Bridges)	1
4	Technical Assistant to CE	1
5	Manager (Finance & Accounts)	1
6	Manager (Environment)	1
7	Accounts Superintendent	1
8	Deputy Engineer (Roads)	1
9	Deputy Engineer (Bridges)	1
10	Deputy Development Engineer (Roads)	-
11	Deputy Development Engineer (Bridges)	-
II	Office of the Executive Engineer, Gulbarga	
1	Executive Engineer	1
2	Deputy Engineer	1
3	Deputy Development Engineer	1
III	Office of the Executive Engineer, Hubli	
1	Executive Engineer	1
2	Deputy Engineer	1
3	Deputy Development Engineer	1
IV	Office of the Divisional Engineer, Hassan	
1	Divisional Engineer	1
V	Office of the Divisional Engineer, Mysore	
1	Divisional Engineer	1
VI	Office of the Divisional Engineer, Davanagere Camp	
1	Divisional Engineer	1

** __ **

Chapter-5 : Physical Performance

Public Works Department, GoK is the Nodal Administrative Department in-charge of all matters related to public works, ports and inland water transport in the State. The mission of PWD is stated to be “to plan, construct and maintain a safe functional and cost effective core road network, public buildings and ports infrastructure in Karnataka”. Under PWD different enterprises are functioning for implementation of above said infrastructure projects. Such Departments functioning under PWD are as follows :

- i. Ports and inland water transport Department
- ii. Karnataka State Highway improvement project
- iii. Karnataka Road Development Corporation Limited (KRDCL)

The projects/works handled by KRDCL are categorized into four broad heads as follows :

- a) Roads
- b) Bridges & Grade Separators
- c) Maintenance of Roads
- d) Other Roads

The activities is also pictorially represented as below :



Generally, projects are undertaken on two models viz., . (i) EPC & (ii) PPP. EPC contracts are regular contracts performed based on the Standard Bidding documents approved by GOK (KW/1 to KW/4). Public Private Partnership (PPP), works have been taken up by the Company by adopting appropriate models viz., BOT, BOOT, DBFOT-VGF (Toll), Annuity, OMT(Toll) etc., The details of each component of projects/works are explained in detail as below :

5.1 Completed projects under EPC

5.1.1 Roads

Road projects taken up by KRDCCL are based on two models i.e. (i) EPC & (ii) PPP. In addition to taking up new road projects, the company also undertakes maintenance of roads across the State. During the period 2001-2004 (Stage-1), State Highway Maintenance work was taken up by the Company and completed maintenance work for a total length of 7327 Km with an expenditure of Rs.225.00 Crore. Under Stage-2 during the period 2005-08, completed maintenance work for a total length of 14,500 Km in 69 packages at an expenditure of Rs.525 Crore.

Since inception, the Company has improved existing roads with a total length of 839 Km across the State. The expenditure made on this account is about Rs.1081 crores. All the above said projects are completed on EPC contract. The details of road projects completed on EPC contract are furnished in the Table – 5.1

Table – 5.1: Projects Completed Under EPC

Sl. No.	Name of the Work	Length (In Km)	Amount
1	Package-BB1 (Bilikere to Bhairya km 0.00 to km 40.00 SH-57)	34.40	40.12
2	Package-BB2 (Bhairya to Hassan km 40 to km 84 SH-57)	44.00	28.53
3	Package-BB 3 (Hassan to Belur km 92.00 to km 127 SH-57)	35.00	23.49
4	Package-JB1 (Jewargi to Moratagi from km 0.00 to km 36.80 - SH-12)	36.80	31.89
5	Package-JB2 (Moratagi to Sindhagi from km 36.80 to km 59.00 SH-12)	22.20	20.68
6	Package-JB3 (Sindagi to Devarahipparagi from km 59 to km 90 SH-12)	31.00	34.27
7	Package-JB-4(Devarahipparagi to Bijapur km 90.00 to km 119.94, SH-12)	28.94	29.66
8	State-I: Aland Road Junction to Shahabad road Junction (GRR)	9.90	14.29
9	State-II: Shahabad Road Junction to Jewargi road Junction (GRR)	4.60	10.98
10	Improvements to Wagdhari-Ribbanpalli Road (SH-10)	4.00	9.61
11	Improvements to Old M. C. Road at Mandya town (SH-17)	7.50	10.15
12	Improvements to approach road to Bridge on Sadalaga Dattawad Road	6.00	1.03
10	Improvement of 4 laning of Bangalore-Mysore Road (SH-17) in Mandya Town Limits	4.05	11.21
11	4-laning of Bangalore-Mysore road package-2(Maddur-Mysore SH-17)	49.00	118
12	Improvements to existing 4-lane road in Ramanagara town from Ch 45.4 km to 51.00 and Channapatna town from Ch 59.40 km to 62.30 km of SH-17 (8.3 Km)	8.30	14.85
13	Widening & Strengthening of Wadi-Raichur road from Km 41.00 to Km 88.00 in Karnataka (Yadgir-A.P. Border (SH-15) (Gulbarga District)	47.00	42.16
14	Widening & Strengthening of existing road from Gadag to Ron (Heritage connectivity Project) (MDR)	40.60	42.16
15	Widening & Strengthening of existing road from Ron to Badami (Heritage connectivity Project) (MDR)	31.80	22.4
16	Improvements to Shahapur-Sindagi road Km 40.00 to 45.00 km	5.00	2.88
17	Widening and Improvements of AP Border (Medak)-Ramasamudra road (via Gurumitkal) in Gulbarga district for length of 45.95 km (SH-16)	45.95	57.46
18	Widening and strengthening of Mysore-Bantwal State Highway (SH-88) Package-1 from Km 1.64 to Km 88.30 I.e. from Mysore to Kushalnagar	86.66	151.04
19	Widening & Improvements to SH-8, Channarayapatna to Arakalgud (Km 28.51 to 72.00 km) (excluding Ch39.40 to 40.05 km Km 45.06 to Km 45.57, Km 46.945 to 47.715 Km	46.00	46.84
20	Widening & Improvements to existing road from Yadgir to Shapur for a length of 34.80 km (Package-II of A.P. Border to Shapur road)	34.80	48.76
21	Construction of Wadi - Raichur road from Wadi to Nalwar village from km 0.00 to km 15.00 (SH-15)	15.00	17.79
22	Widening & Strengthening of Wadi-Raichur road from Km 0.00 to Km 41.00 in Karnataka (Wadi-Yadgir) (Gulbarga District)	26.00	37.03
23	Construction of Bypass to Holenarasipura	1.02	1.65
24	Construction of 4-lane ring road from Jewargi road junction to Aland road junction (km 14.50 to km 22.52) stage - 2, part - 2	8.02	23.24
25	Construction of 4-lane road from Anubhav Mantap cross road to IB circle from km 2.50 to km 4.30 (1.80 km) at Basavakalyan	1.80	3.66
26	Widening & Improvements to left out reaches of State Highway SH-8, Hirisave - Chattahalli (Km 42.47 to km 47.87 and km 44.47 to km 47.47) (Geometric improvements from Ch. 64.48 to 65.48, 68.98 to 69.388, 70.38 to 71.58 and 72.23 to 72.80)	8.30	11.68
27	Widening & Improvements to Mysore-Bantwal Road Package-B (SH-88) from Kushalnagar to Sampaje (Km 88.30 to 148.50 km)	60.20	173.21
28	Widening and Strengthening to Peeranwadi - Chorla road 50.10 Km	50.10	
29	Development of road from Konanur to Kushalnagar from km 0.00 to km 5.00	5.00	13.75
Total		838.94	1080.72

5.1.2 Bridges :

The company has completed bridges under different phases alongwith roads under EPC mode. Under four phases I, II, III and IV it has completed 635 bridges across the State. Among these, ten major Bridges have been taken up by the company. The total expenditure made on bridges is Rs. 821.26 crores and details are furnished in the Table-5.2.

Table-5.2 : Completed Bridge works under EPC

Sl. No.	Particulars	No. of Bridges	Expenditure (Rs.crores)
A	Bridge works including minor bridges		
1	PHASE-I	147	107.7
2	PHASE-II	255	246.43
3	PHASE-III	163	226.05
4	PHASE-IV	70	89.41
	Sub Total - A	635	669.59
B	Major Bridges completed		
1	Construction of Bridge across river Yagachi in Belur town	1	4.10
2	Construction of Bridge at 36.80 Km in Hirisave – Chattahalli road across Hemavathi River in Hassan District	1	7.50
3	Construction of bridge across Yagachi river near Malliganahalli on MDR in Hassan Tq.	1	4.19
4	Construction of Grade Separator / Interchange for the junction of 4 lane Bangalore Mysore road and Ring road at Kengeri.	1	25.08
5	Construction of ROB from Shahbad road junction to Jewargi road junction.	1	9.53
6	Construction of High Level Major Bridge and Road across Maharudrappana Halla in Bagalkot District.	1	32.94
7	Construction of bridge across Malaprabha River at Km 48.20 near Munavalli on Arabhavi-Challikeri Road in Saudatti Taluk in Belgaum District.	1	10.38
8	Reconstruction of Bridge at Km 56.50 across Tungabhadra River on Devasugur – Kattagoda State Highway-13 In Raichur District.	1	43.15
9	Construction of bridge at Km 4.32 and Km 4.72 across Ghataprabha river on Ghataprabha Railway Station to Konnur village in Belgaum District.	2	14.8
	Sub Total - B	10	151.67
	Total (A+B)	645	821.26

5.2 On Going Projects under EPC :

5.2.1 Roads

KRDCL is currently handling 10 road projects of about 374 km length at a contract amount of Rs.956.40 crores, in different locations across the State. The higher amount is earmarked for roads connecting Mysore-Bantwal covering a length of 72 kms. at a contract amount of Rs. 176.62 crores. The second highest amount is being spent for road between Sindhanoor–Kustagi covering a length of 64.30 kms. at a contract amount of Rs.154.59 crores. The average amount of expenditure is Rs.2.56 crores/km. These 11 road projects are under various stages of completion and the details are enclosed vide **Annexe-1**.

5.2.2 Bridges

The ongoing bridge projects taken up under Phase-I is at an expenditure of Rs.38 crores. Under Phase-II the amount being spent is Rs.41 crores. Under Phase-III 13 bridge projects are undertaken at contract amount of Rs.225 crores and the highest amount of contract is for the bridge project taken up across Krishna river in Bagalkot district at a cost of Rs.38.98 crores. Under Phase-IV, 6 projects are undertaken at contract amount of Rs.41.41crores and the highest amount of contract is for the bridge project taken up across Lakshmanatheertha in Mysore district at a cost of Rs.27.31 crores. Under Phase V a bridge project across Lakshmanatheertha river taken at the cost of Rs.1.70 crores. KRDCL comprise 13 new bridges along with 7 nos. of Phased Bridges (Phase–III- 6 nos. and Phase-IV-1 no.). These Bridges are under various stages of progress and the details are enclosed vide **Annexure-2**.

5.3 Projects taken up on PPP mode

In addition to road projects under EPC mode, the company also undertakes roads under PPP mode through appropriate options. The PPP options comprise BOT-VGF mode, annuity mode, DBFOT-VGF mode etc.,

5.3.1 Completed projects

a) PPP-BOT-VGF(Toll) Projects :

KRDCL has completed two major road projects under PPP-BOT-VGF(Toll) mode. A total length of 201.60 km is taken up under these two projects at an estimated cost of Rs. 480.75 crores. The details are given in Table–5.3.

Table – 5.3 : Projects taken up on PPP-BOT-VGF(Toll) mode

Sl. No	Name of work	Name of the Concessionaire	Length in km	Total Project Cost (TPC) (Rs. crores)
1	Improvements to State Highway (SH-10) from Maharastra Border to Andhra Pradesh Border via Aland, Gulbarga, Malkhed, Sedam, Ribbanpally (Whagdhari-Ribbanpally road) in Gulbarga District on PPP-BOT-VGF (Toll) Basis	M/s. GVRMP Whagdhari-ribbanapally Tollway Pvt. Ltd.,	135.85	242.75
2	Widening & Impts to Dharwad-Alnavar-Ramnagar (SH-34) road on BOT-VGF (Toll) basis	M/s. GVRMP Dharwad-Ramnagar Tollway Pvt. Ltd.,	61.75	238.00
Total			197.60	480.75

b) Projects taken up on Annuity Mode

In other cases some projects are undertaken in annuity mode as a PPP project, when the projects are non-viable and when there is insufficient funds. The cost of the project is to be borne by Concessionaire either partly or wholly. Concession period will be generally ranges from 10 to 15 years which includes construction period also.

Under this mode, during construction, Concessionaire will not be provided any financial assistance which is a saving to the Government. Annuity amount will be paid once in 6 months during Maintenance period. Under Annuity mode three road projects have been taken up by KRDCCL covering a total length of 131.17 Kms at an estimated cost of Rs. 1069.56 crores. The details are furnished in the Table–5.4.

Table – 5.4: Projects taken up under annuity mode

Sl. No	Name of the Work	Name of the Agency	Length (In KM)	Contract Amount (Annuity)
1	4-laning of Bangalore-Mysore road package-1(Bangalore -Maddur SH-17)	M/s. Brindavan Infrastructure Company Limited	62.50	475.2
2	Improvements and Widening of Hubli - Lakshmeshwara Road (Mangasuli-Lakshmeshwar SH-73) in Hubli and Kundagol Taluk of Dharwad and Gadag District Km 0.00 to Km 42.96 (Annuity Project).	M/s. GVR –RMN Hubli-Lakshmeshwar Road Project Pvt. Ltd.,	43.00	266.76
3	Development of sh-132 (Bellary - Moka road) on PPP-Annuity basis.	M/s. SEW Bellary Highway Private Ltd.,	25.67	327.6
Total			131.17	1069.56

5.3.2 On Going PPP Projects

a) PPP-BOT-VGF (Toll) mode

KRDCL has taken up various PPP Projects which are on going and at various stages of progress. These are being implemented under PPP-BOT-VGF (Toll) mode. A total length of 74 km is taken up under these two projects at an estimated cost of Rs.242 crores. The details are given in Table – 5.5

b) PPP - DBFOT-VGF(Toll) mode

KRDCL has taken up various PPP Projects which are on going and at various stages of progress. These are being implemented under PPP-DBFOT-VGF (Toll) mode. A total length of 83 km is taken up under these two projects at an estimated cost of Rs.190.16 crores. The details are given in Table – 5.5

Table – 5.5 : BOT-VGF (Toll) mode and BOT-DBFOT-VGF (Toll) mode

(Rs. crores)						
Sl. No	SH No.	Name of work	Name of the Concessionaire	Length in km	Total Project Cost	Status
a) PPP - BOT-VGF(TOLL)						
1	SH-71 & MDR	Improvements to Chikkanayakanahalli – Tiptur – Hassan Road (Partly MDR and Partly SH) on PPP-BOT-VGF (Toll) Basis	M/s. Abhijeeth Tollroad (Karntaka) Ltd.,	76.221	242.00	Project is terminated on 08.09.2014
b) PPP - DBFOT-VGF(TOLL)						
1	SH 23	Development of road from NH-63 near Ginigere - Gangavathi to Sindhanoor	M/s. Sindhanoor-Gangavathi Tollrway Pvt. Ltd.,	83.00	190.16	Work is under progress.
Total				159.221	432.16	

5.3.3 Proposed PPP projects

a) PPP-DBFOT-VGF (Toll) Mode.

KRDCL has newly proposed six road projects under PPP - DBFOT-VGF (TOLL) Mode. Total length of 514.23 km is proposed under these six projects at an estimated cost of Rs.1493.09 crores. The details are given in Table – 5.6

Table – 5.6 : Proposed PPP -DBFOT-VGF (TOLL) Projects

Sl. No	SH No.	Name of work	Total Project Cost (TPC)	Length in km	Status
1	SH-74	Development of road from Nelamangala to Chikkaballapura	168.04	64.05	No response to 1 st call hence, 2 nd call for R.F.Q. is invited on 29.12.2014 and due date for R.F.Q submission is on 16.04.2015 date of opening of technical bids is on 20.04.2015.
2	SH-05	SH-05 connecting Bangarpet with Bagepalli via Kolar and Chintamani	450.42	190.10	No response for 3 calls. Hence, proposal submitted to govt. on 11.1.15 for approval to prepare revised feasibility report for 90 km.
3	SH-12, 44,53	Gotur - Kagewad (SH-12)	174.00	60.23	4 th call FRQ invited on 29.12.2014 due date for submission of RFQ is on 16.4.15.
4	SH-09	Yelahanka to A.P. Border from Doddaballapura - Hindupur section	380.85	74.35	Government gave approval for the tender of M/s.Ramalingam Construction Co. Pvt.Ltd., & KMC Const. Ltd., for VGF of 39.99% and LPA was issued on 6.1.2015
5	SH-96	SH-96 connecting Devanahalli with Kolar via Vijayapura Vemgal	148.00	49.00	5 th call –last date for receiving bids for RFQ is 16.4.2015
6	SH-25	Development of road from Shimoga - Honnali to Harihara	171.78	77.50	5 th call – last date for receiving bids for RFQ is 16.4.2015
Total			1493.09	514.23	

b) Maintenance under Operation Maintenance and Transfer Mode

KRDCL has also proposed six road projects for maintenance under Operation Maintenance and Transfer (OMT) Mode. A total length of 602.60 km is proposed under these six projects at an estimated cost of Rs.331.47 crores. The details are given in Table – 5.7

Table – 5.7 : Projects Proposed for maintenance under OMT

Sl. No	Name of work	SH No.	Length (km)	Estimated Total Cost	Revised Package Cost
1	Road from Hungund Belgaum via Bagalkot, Lokapur	SH-20	174.90	116.60	80.00
2	Road from Kalmala to Sindhanur	SH-23	76.90	64.06	37.00
3	Road from Krishna Bridge to Lokapur	SH-34	55.30	49.30	34.00
4	Road from Bilikere to Belur via Hassan.	SH-57	127.00	45.30	45.00
5	Road from Sankeshwar Yeragatti via Gokak	SH-44 & 45	75.20	37.71	44.00
6	Road from AP border (Medak) to Shahapur via Yadgir.	SH-16	93.30	18.50	37.00
Total			602.60	331.47	277.00

c) PPP-Co-financing-Hybrid Annuity Mode

KRDCL has proposed seven road projects under PPP-Co-financing-Hybrid Annuity Mode. Under this model a maximum of 40% of project cost would be contributed by KRDCL/Government during construction period and balance 60% would be invested by concessionaire. The concessionaire who ever quotes highest percentage more than 60% would be the selected concessionaire for the road project. In this model, the concessionaire gets back his investment from KRDCL as annuity (2 installments per annum) over a total period of concession.

It can be noted that, at any point of time KRDCL has the right to collect the toll from such roads and this clause generally would be introduced in such modes. The concessionaire would be eligible for total annuity+some toll collection in the beginning of the concession period. A total length of 381.35 km is proposed under these seven projects at an estimated cost of Rs.1180 crores. The details are given in Table – 5.8

Table – 5.8: PPP-Co-financing-Hybrid Annuity Mode

Sl No	Name of the road	Length in Kms	Estimated Constn. cost (Rs. crore)
1	Bagewadi (NH-4)- Bailhongal - Saundatti	63.29	191.00
2	Bidar - NH-9 (Ekhelli)- Chincholi	60.04	181.00
3	Hassan-Ramanatpura-Periyapatna	73.54	219.00
4	Hirekerur - Ranibennur	58.30	206.00
5	Mundaragi - Hadagali - Harapanahalli	51.21	163.00
6	Hungund - Muddebihal -Talikota	56.82	164.00
7	Raibhag - Kudichi	18.15	56.00
Total		381.35	1180.00

5.4 Abstract of projects

The abstract of roads and bridge projects completed as well as proposed by KRDCCL are given Table – 5.9.

Table – 5.9: Abstract – Roads & Bridge Projects

Sl.No.	Category of Roads	Completed	On going	Proposed
I	Projects under EPC			
	New projects			
a)	Roads	839 kms.	374 kms.	-
b)	Bridges	645 nos.	20 nos.	-
	Maintenance work	21,837 kms.	-	-
II	Projects under PPP mode		-	-
	New road projects			
a)	BOT-VGF (Toll) mode	197.60 kms.		
b)	DBFOT-VGF (Toll) mode	-	83 kms.	514.23 kms.
c)	Annuity mode	131 kms.	-	381 kms.
	Sub Total (a+b+c)	328.60 kms.	83 kms.	895.23kms.
	Maintenance of roads			
	Maintenance of roads under OMT mode	-	-	603 kms.

5.5 A Snap shot at Important Projects taken up by KRDCCL

KRDCCL has taken up various road projects in the State of Karnataka. Of them, the following 13 projects including ring roads and grade separators are important / worthy projects to mention and completed by KRDCCL :

1) Grade Separator at Kengeri

As a part of road project KRDCCL, has taken up Grade Separator at Kengeri junction. The cost of the project was Rs. 23 crore and awarded to NCC Ltd., M/s. S N Bhoje Associates, were the project management consultants for the project. The contract period for the project was 1 year three months.

2) Strengthening & 4-laning of existing Bangalore – Mysore State Highway (SH-17) :

Bangalore – Mysore Road is an important State Highway in the state connecting State Capital with cultural city of Mysore. Large volume of tourist traffic is plying on this road everyday. There is increasing trend in traffic growth all along this road and hence KRDCCL proposed to strengthen & widen the existing road to four lane.

The length of road from Bangalore to Mysore is 140 Kms. The project road starts from the junction of university road of Bangalore at 11.3 Km of Mysore Bangalore road ends near Hardinge Circle in Mysore. KUIDFC has undertaken improvement of 9 Kms of road in Ramanagar & Channapatna. The length of the project road which requires improvement will be 120 Kms. The cost of the project was Rs.188 crore and contract period was 24 months. However, the scheduled completion of the project was during June 2006 and there was time over run of two months only.

3) Widening & Improvements to Mysore – Bantwal Road (SH-88)

The State Highway (SH-88) connecting Mysore to Bantwal road was considered for widening and strengthening. The road provides connectivity through Mysore–Hunsur–Periyapatna–Kushalnagar–Suntikoppa–Madikere–Sulya–Puttur and then intersects NH-48 at Bantwal. This road provides vital link between Mysore–Madikeri and Mangalore. All these districts attract tourists from India and Abroad. Mysore city is famous as a center of excellence in Education and Culture. Madikeri is a district Headquarters of Kodagu and is known for scenic beauty and hill station and visited by many tourists everyday.

It is also rich in coffee plantation, orange groves and paddy fields. Mangalore district has important port cities, pilgrim places and major export center for coffee, timber, log and mineral with highest in industrialization potential. The Project Road carries sizeable volume of inter and intra State commercial traffic and tourist vehicles. The total length of 218.76 km Road was divided into three packages for convenient implementation and faster completion. The cost of project was Rs.266 crores for all the three packages.

4) Bilikere–Belur – State Highway (SH-12) :

This is State Highway leading from Bilikere – Belur (SH-57) and takes off at km 0.00 at approx. to km 29.900 of SH- 88. Thereafter, SH – 57 proceeds towards north via K.R. Nagar, Holenarsipura, Hassan and Belur ending at km 127. The Project stretch (SH-57) has total of 275 structures. There are three major bridges (length > 60m) viz. at km 3.950 across Lakshmanatheertha, km 18.150 across Cauvery and km 59.750 across Hemavathy river, 21 nos. minor bridges (length < 60 m) and 251 nos.

CD structures (length < 6 m) constructed all along the road project. The project road was divided into 4 packages and the cost of the project was Rs. 119 crore.

5) Widening & Improvements to SH – 8 - Channarayapatna – Arakalgud road :

The project road Channarayapatna – Holenarsipura–Arakalgud section of SH – 8 lies in the southern part of Karnataka and provides vital connectivity between NH-48 (Bangalore – Mangalore road) at Channarayapatna with SH-21 (Hassan – Periyapatna road) at Arakalgud. This road also serves as linkage road for the traffic destined / originating between southern districts such as Mysore and Madikeri with Shravanabelagola, a major Jain Pilgrimage center.

The cost of the project was Rs. 54.20 crore as per GoI and awarded to GVR Constructions Pvt. Ltd., M/s.Consulting Engineering Services (I) Pvt. Ltd, the project management consultants for the project. The contract period for the project was 24 months.

6) Widening & Strengthening of Existing Gadag – Ron - Badami Road (SH & MDR)

Ron – Badami road is an important link of Gadag – Ron – Badami road linking Ron with Badami, a historical and heritage place in Karnataka, which is world famous for its cave temple. Two more historical temples and heritage places such as Aihole and Pattadkal and Banshankari temple of goddess Banashankari is also located close to Badami. These places attract large number of tourists and pilgrims both from India and abroad. The project road is 72.40 km in length comprising of 22.60 km of SH – 6, Karwar–Kaiga-Iiakal road (km 241.25 to km 263.85) and 18.00 km of MDR, Kotumachagi–Ron-Badami road (km 0.00 to km 18.00).

Widening & strengthening of existing road (SH & MDR) from Gadag to Ron for a length of 40 km. in Karnataka (Heritage connectivity project) – Rs. 30.75 crore (GoI)

Ron to Badami for a length of 31.80 kms. – Rs.18.60 crore.

7) Widening & Strengthening to Belgaum – Chorla road :

The cost of the project was Rs. 92.99 crore including PA and actual tendered amount was Rs.76 crores. The contract was awarded to Shri. P.B. Ibrahim, Bhatkal M/s. Consulting Engineering Services (I) Pvt. Ltd, the project management consultants for the project. The contract period for the project was 30 months and total length – 50.01 kms.

8) Widening & strengthening of Wadi–Raichur road

The Project road originates at Wadi town near ACC plant and passes through Yadgir town in Gulbarga district and connects Raichur in the North East part of Karnataka. The project road is of 88 km length and is a vital link providing connectivity to various cement plants located along the project road with Raichur Thermal Power Station. Trucks carrying raw materials, cement and Shahabad stones transit along the project road. The total length is 88.0 km and cost of the project was Rs. 58.50 crores and tendered amount Rs. 58 crores.

9) Widening & Improvements to AP border (Medak) – Ramasamudra road

The project road is 45.95 km in length of MDR Kodangal–Ramasamudra-Yadgir road starting at km 0.000 at Medaka village (A.P. Border) and ends at km 45.950 at Ramasamudra. The road section passes through plain terrain (except for 2.2 km in Ghat section near Dharpur village, km 26.100 to km 28.300).

The total length is 45.95 km and cost of the project was Rs. 46.55 crores and tendered amount Rs.51.06 crores

10) Jewargi – Bijapur – State Highway (SH-12) :

KRDCL has taken up Improvements to Jewargi– Bijapur road (SH-12). This was State Highway leading from Jewargi to Bijapur (SH–12).

The project road passes through two districts of Karnataka State viz., Bijapur and Gulbarga. The Project Road length is 119.2 km. The estimated cost of the project was Rs. 124 crore and tendered amount Rs.118.01 crore.

11) Gulbarga Ring Road :

KRDCL has taken up Gulbarga Ring Road project consisting of 22.50 km. Out of which, Right of Way (ROW) was available for 10 Kms and for balance, the ROW was to be acquired. This road is constructed with 4-lane divided carriageway and 2 no. of service roads on either sides with utility corridor of 3 km between the Service roads and main road. The estimated cost of the project for I phase was Rs. 124 crore and tendered amount Rs.118.01 crore. The balance length of Stage – II, Phase-II for a stretch of 8 km was awarded to M/s. Vijay Balaji Constructions Ltd., at an estimated value of Rs. 28.58 crore and tendered amount of Rs. 30.76 crore.

5.5 Project- B-TRAC- 2010

KRDCL has even developed roads within Bangalore City. In the recent times, Bangalore city has witnessed a phenomenal growth in vehicle population. As a result, many of the arterial roads and intersections are operating over the capacity (i.e., V/C is more than one) and average journey speed on some of the key roads in the Central Area are lesser than 10 kmph in the peak hour. Therefore, it had become necessary to establish plans for efficient traffic management for Bangalore Traffic Improvement under the Project viz., B-TRAC 2010. Goals and Highlights of B-TRAC 2010 project are two-fold and are as follows :

a) Operational Highlights

- ◆ Reduce traffic congestion by 30% in the Central Area of Bangalore City.
- ◆ Reduce accidents atleast by 30% in the city of Bangalore
- ◆ Achieve significant reduction in pollution
- ◆ Achieve substantial compliance of Traffic Laws and Rules
- ◆ Set up effective Trauma Care System

b) Institutional Highlights

- Coordinated traffic management viz., institutionalizing Traffic Task Force, Road Safety Committee, Traffic action Committee etc..
- Robust Revenue Model (traffic funds to pay for traffic management infrastructure and maintenance)
- Legal and Institutional reforms
- Capacity Building (modernization and upgradation of Traffic Training Institutes etc.,)
- Strengthening of Traffic police by augmenting better office facilities, trained staff; improving communication system and mobility

** _ **

Chapter-6 : Comparison of set objectives V/s. Performed activities

A comparison of activities performed by KRDCCL is made with its set objectives, to know whether there is any difference or deviation. The important set of objectives are only compared with performed activities and as below:

Sl. No.	Set Objectives	Performed Activities
1.	Construct, erect, build, remodel, repair execute, maintain road projects on own funds or BoT/BooT/BoLT Mechanism.	<ul style="list-style-type: none"> • KRDCCL is in line with the set objective • Road projects are executed/remodeled/repared and also maintained • KRDCCL is in the process of taking up projects under BoT/ BooT/BoLT Mechanism.
2.	Build-road infrastructure which are economically viable and strategically important.	<ul style="list-style-type: none"> • Road projects are taken-up which are economically viable. • Also they are being strategically important • Provide connectivity to the remote areas • Facilitate fast movement of men and materials
3.	Develop, maintain and operate road, highway, bridge facility or public facility of similar nature.	<ul style="list-style-type: none"> • Only development and maintenance are taken up currently by KRDCCL • To operate road highway, bridge facility or public facility are not yet taken up in full fledged manner
4.	Identification and promotion of road projects under BoT	<ul style="list-style-type: none"> • 4 road projects have been identified and being implemented under PPP-BOT-VGF (Toll) basis • 6 road projects have been proposed under PPP-Co-financing-Hybrid Annuity Mode.
5.	Facilitate BoT operator to levy and collect toll / service charges for usage of roads	<ul style="list-style-type: none"> • The scheme is in implementation for some of road projects • Toll / service charges for usage of roads is fixed and collected by the BoT operator
6.	Adoption of appropriate standard specification in road construction and maintenance, enforcing modern quality procedures	<ul style="list-style-type: none"> • Implementing road projects commensurating MORTH guidelines • Execute the works enforcing modern quality procedures
7.	Construction and subsequent maintenance of existing road projects executed by State Government from its funds and to retain the right of levy and collection of toll.	Not in practice. However, some of the roads are retained for toll collection by KRDCCL under co-financing mode. Otherwise toll collection is with the concessionaire under PPP-BOT-VGF (Toll) mode.

Sl. No.	Set Objectives	Performed Activities
8.	Entering into arrangement with the Government or any state or central government undertakings for availing concessions, grants, decrees, rights or any such privileges	<ul style="list-style-type: none"> • Currently no such arrangements. • Could be proposed for such concession/grants from GoI under various schemes
9.	Contracts and arrangements for deriving benefits from sale of advertisements rights, motels etc.,	<ul style="list-style-type: none"> • Deriving benefits from sale of advertisements rights, motels etc are not in practice. • No revenue from such activities being realized for KRDCCL
10.	Enter into partnership or any arrangements for sharing profits, union of interest, cooperation, joint venture etc., with any other person or similar company for enhancing profits	<ul style="list-style-type: none"> • Not entered into partnership or any arrangements for sharing profits • No joint venture projects undertaken
11.	Purchase, take on lease or otherwise acquire and hold either solely or jointly with others any movable or immovable properties.	<ul style="list-style-type: none"> • Currently not undertaken • For development of roads suitable appropriate notices would be issued for acquisition and also with proper compensation
12.	Selling and disposal of shares, stocks, debentures, bonds etc.,	<ul style="list-style-type: none"> • As it is a 100% Government owned company, it cannot enter into to such business
13.	Sell, improve, manage, develop, exchange, lease, mortgage, dispose off with all or part of the property of the company to turnout better performance and profitability	<ul style="list-style-type: none"> • The KRDCCL do not have ownership of any fixed asset • The entire ownership of properties including land, roads, bridges and structures lies with state government / PWD and hence KRDCCL cannot take up such activities.
14.	Transfer of road highway, bridge infrastructure to Govt./Govt., undertaking/municipal authority after a specified period.	-do-
15.	Let out on lease or on hire any of the property either immovable or movable.	-do-
16.	Raise funds necessary for road and allied projects by issue of shares, securing loans from government and other sources viz., Asian Development Bank, World Bank and any other financial institutions	<ul style="list-style-type: none"> • Loan raised from HUDCO from current projects • Proposal for loans from NABARD for future projects • Not taken up loan from ADB / World Bank
17.	Investing money for any of the purpose of the company as may be considered proper and to hold and deal with such investments	Not in practice

Sl. No.	Set Objectives	Performed Activities
18.	Employing brokers, commissioned agents and under writers for issue of shares debentures or securities of the company	Not in practice
19.	Establishing or promoting or concurring in establishing or promoting any company for the purpose acquiring all or any of the property, rights and liabilities of that company.	Not in practice
20.	Acquire, purchase and protect any patents, patent rights, brevets, trade marks, designs, license etc.,	Not in practice
21.	Creating reserve fund, sinking fund, insurance fund or any other special fund for depreciation or improving, extending or maintaining etc.,	Not in practice
22.	Employ and source engineers, mechanics, masons, designers, carpenters, painters, electrician from PWD on deputation or otherwise.	<ul style="list-style-type: none"> • Most of Engineers are on Deputation from PWD • Accounts people would be from State Accounts Department

It can be noted that, KRDCCL is in line with the some of the its set objectives as per as road development projects are concerned. There is little progress made in respect of PPP projects and need for sourcing such projects for its sustainability.

** _ **

Chapter -7 : Financial Performance

7.1 Comparison of Profit and Loss Account

During the period of review for last five years (2008-09 to 2012-13), KRDCCL has been able to make profit only for the last three years. During this period profit after taxes was Rs.285 lakhs, Rs.931 lakhs and Rs.980 lakhs respectively. It incurred losses of Rs.565 lakhs (2008-09) and Rs.948 lakhs (2009-10).

Due to heavy losses in the previous years, there was no net amount carried to balance sheet in all the five years from 2008-09 to 2012-13(which is the reference period for the study). Accordingly, the losses carried to balance sheet for the five years were Rs.8490 lakhs, Rs.9438lakhs, Rs.9142 lakhs, Rs.8221 lakhs, and Rs.7231 lakhs respectively. Profit & loss account of the Company indicating details viz.,profit /loss for the year, profit/loss after taxes, Loss of the previous years carried to next year etc., are furnished in Table -7.1.

Table-7.1 : Profit and Loss Account as on 2008-09 to 2012-13

(Rs. Lakhs)						
Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
I	Income					
	Revenue from operations	-	-	-	-	-
	Other income	920	651	1593	5232	4548
	Total Revenue	920	651	1593	5232	4548
II	Expenditure					
	Finance costs	-	-	-	2913	2395
	Employee benefit expenses	161	215	224	381	190
	Depreciation & amortization Expense	296	308	360	394	431
	Other Expenses	1025	1066	706	324	209
	Total expenditure	1482	1589	1289	4013	3225
	Profit before tax	(562)	(938)	304	1221	1323
	Add for Fringe benefit tax	3	-	-	-	-
	Prior period (CR)/DR	-	10	19	-	-
	Deferred Tax Expenses	-	-	-	(288)	(343)
	Profit After Tax	(565)	(948)	285	931	980
	Previous year loss	(7925)	(8490)	(9427)	(9142)	(8221)
	Loss carried to Balance Sheet	(8490)	(9438)	(9142)	(8221)	(7231)

The income to the Company is from interest earned on short term deposits (Net), Sale of Tender Booklet, Administration Charges and other Income. The other income comprises revenue grants received from GoK, administration charges collected, prior period income etc.,

7.2 Trends in Gross Turnover

The Gross revenue during the year 2008-09 was Rs.920 lakhs which decreased to Rs.651 lakhs during 2009-10. However, during 2010-11, 2011-12 and 2012-13 there has been steep increase in the gross income of the company and recorded values of Rs.1593 lakhs, Rs.5232 lakhs and Rs.4548 lakhs respectively.

It can be noted that, the company could earn profits in the last three years. During this period, there were more deposits collected for implementation of roads. Increased deposits which were short term in nature earned interests to the Company. Further, the Company could also collect administrative charges at 5% on the expenditure incurred in respect of deposit contribution works. Under the circumstances, there was increase trend in gross revenue accrued to the Company in the last three years. However, the Company so far is not able to generate much profits from road projects developed under PPP mode, as it is constrained to do so. Hence, the gross revenue for the Company accrued every year is mainly from interests earned on deposits and others.

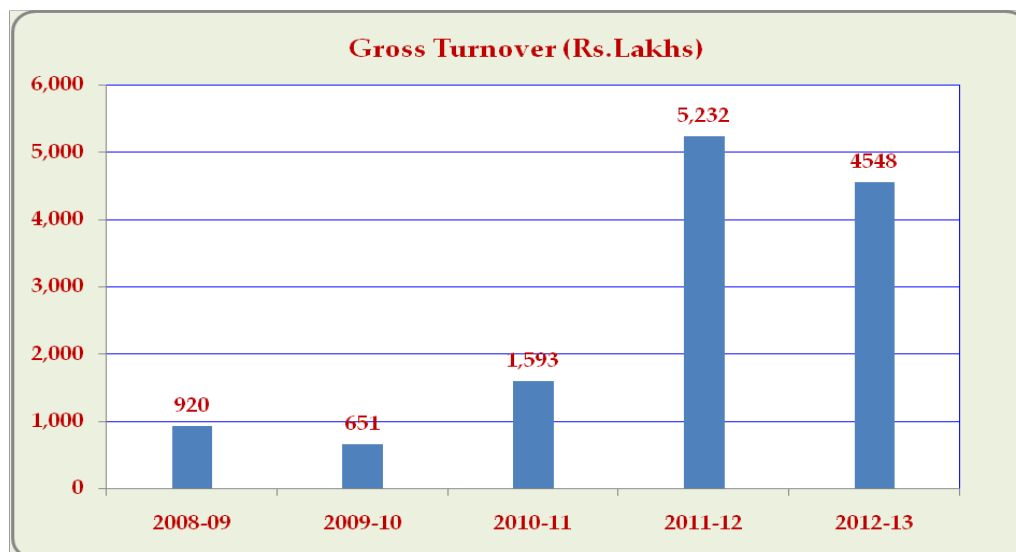
The trends in turnover is compared for the last five years and given in Table-7.2. For the financial year, it achieved a turnover of Rs.920 lakhs, which decreased by 29% amounting to Rs.651 lakhs as on 2009-10. However, the company turned out Rs.1593.00 for the year 2010-11, indicating 145% increase over the previous year. Further, in 2011-12 reached a maximum of Rs.5232 lakhs indicating 228% increase over the previous year. However, there was a marginal decrease by 13% in 2012-13, recording a value of Rs.4548 lakhs.

Table-7.2 : Trends in Gross Turnover

Year	Gross turnover (Rs. lakhs)	Increase/ Decrease in turnover over the previous year	
		Amount (Rs. lakhs)	%
2008-09	920.00	-	-
2009-10	651.00	-269	-29
2010-11	1593.00	942	145
2011-12	5232.00	3,639	228
2012-13	4548.00	-684	-13

Further, the trends in gross turnover is represented graphically vide **Graph 7.1**

Graph -7.1



7.3 Trends in Gross Expenditure

The gross expenditure comprise salaries, administrative expenses, guarantee commission paid to Government of Karnataka, interest on loan etc., and details are given in Table-7.3.

Table-7.3 : Trends in Gross Expenditure

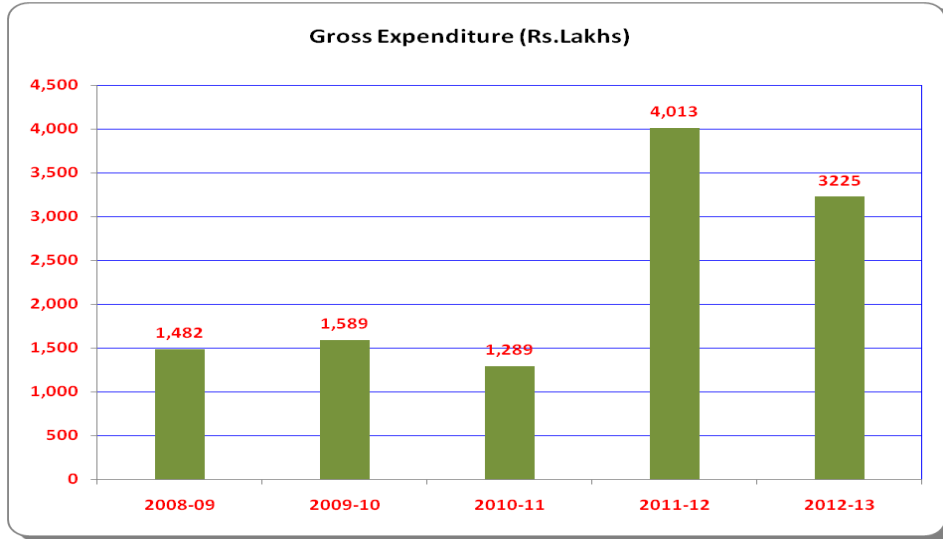
Year	Total expenditure (Rs. lakhs)	Increase/Decrease in expenditure	
		Amount (Rs. lakhs)	%
2008-09	1,482	-	-
2009-10	1,589	107	7
2010-11	1,289	-300	-19
2011-12	4,013	2,724	211
2012-13	3,225	-788	-19

Gross expenditure during the year 2008-09 was Rs.1482 lakhs which increased to Rs.1589 lakhs during 2009-10. However, during 2010-11 there has been decrease in the expenditure to Rs.1289 lakhs (19%). The expenditure increased steeply up to Rs.4013 lakhs (211%) as on 2011-12. Further, from year 2012-13 the gross expenditure marginally decreased to Rs.3225 lakhs, indicating 19% decrease over the previous year.

The major portion of expenditure is towards interest paid on loans which is in the average range of 40% for the years 2008-09 to 2010-11 which increased over 70% during the year 2011-12 and further increased by 74% as on 2012-13.

The trends in gross expenditure is represented graphically vide Graph 7.2

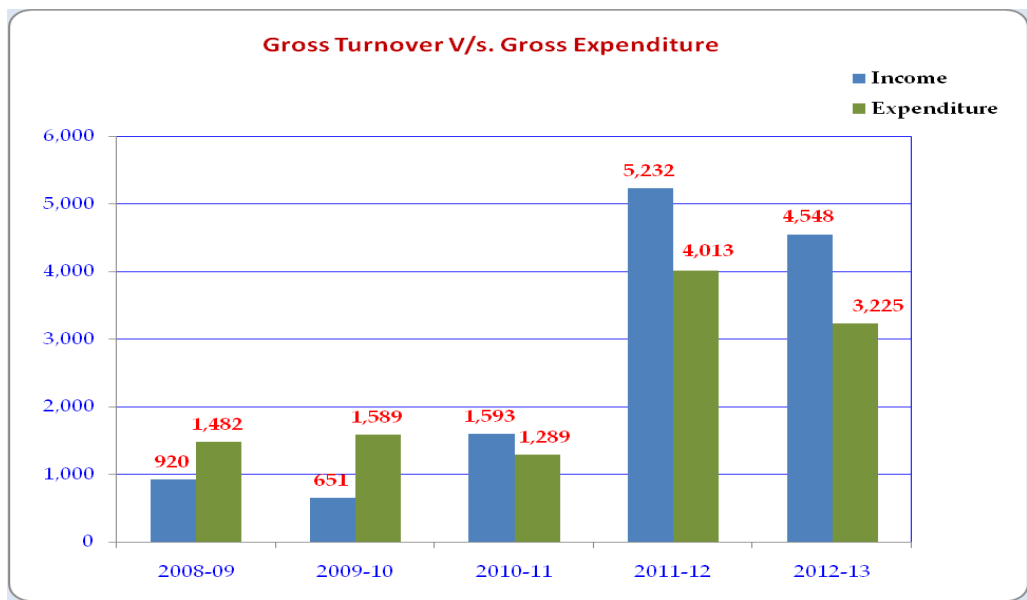
Graph 7.2



7.4 Comparison of Gross Turnover V/s. Gross Expenditure

The comparison of Gross Turnover V/s. Gross Expenditure for the last five years indicates that, expenditure is exceeding the income during the initial 2 years. However, there has been a reverse trend and income is exceeding the expenditure during 2010-11,2011-12 and 2012-13. The comparison of Gross Turnover v/s. Gross Expenditure is represented graphically vide **Graph - 7.3**

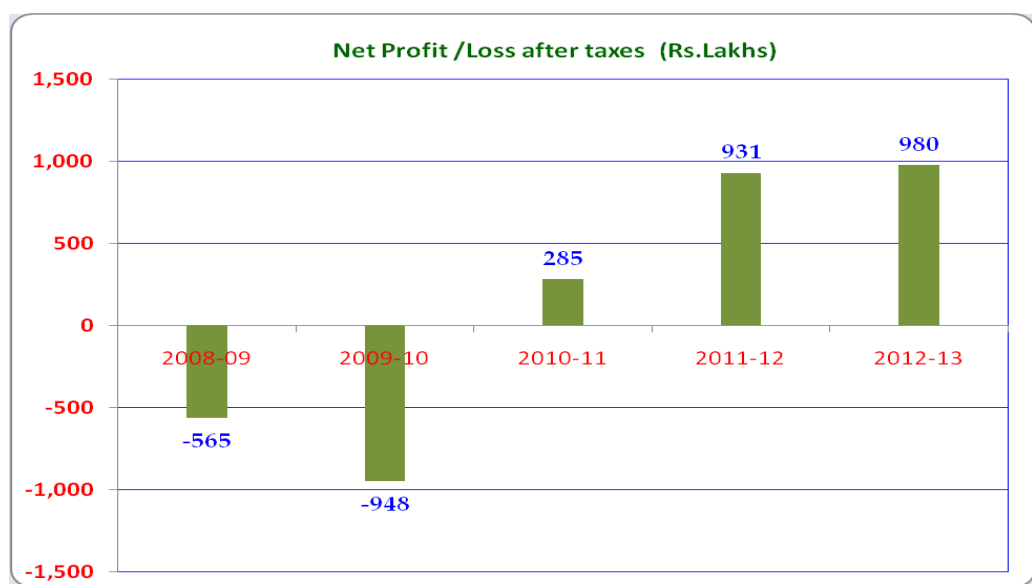
Graph -7.3



7.5 Comparison of Net Profit / Loss After taxes

The comparison of Net Profit / Loss After taxes for the last five years indicates that, the company incurred losses to the extent of Rs.565 lakh and Rs.948 lakhs during 2008-09 and 2009-10 respectively. However, there is reverse trend and increase of profit during 2010-11 of Rs.285 lakhs which substantially increased Rs.931 lakhs 2011-12 and further increased to Rs.980 lakhs as on 2012-13. The comparison is represented graphically.

Graph -7.4



7.6 Financial Ratios

The financial ratios have been worked out and furnished in the **Table -7.4**.

Table : 7.4: Financial Ratios

Sl. No.	Details	2008-09	2009-10	2010-11	2011-12	2012-13
1	Return on Capital Employed (%)	-0.39	-0.52	0.16	4.59	5.01
2	Return on Equity (%)	-2.82	-4.69	1.52	5.80	6.41
3	Return on Net Worth (%)	-	-	-	-10.20	-12.08
4	Debt Equity Ratio (%)	-	-	-	0.57	0.53
5	Earning per Share (in Rs.)	-0.03	-0.05	0.02	0.06	0.06

It is observed that,

- Return on Capital Employed which was negative during the first two years turned positive and recorded 0.16% during 2010-11 and further increased to 5.01% as on 2012-13.
- Return on equity which was also negative during the initial two years also turned positive and increased upto 6.41% as on 2012-13.
- Earning / share which was negative during the first two years target positive from 2010-11 and increased upto Rs.0.06 as EPS as on 2012-13.

7.7 Comparison of individual expenses with Gross Turnover

A comparison of of individual expenses with Gross Turnover is given in the Table-7.5. The comparison includes salaries v/s. turnover, interests paid v/s. turnover etc.,

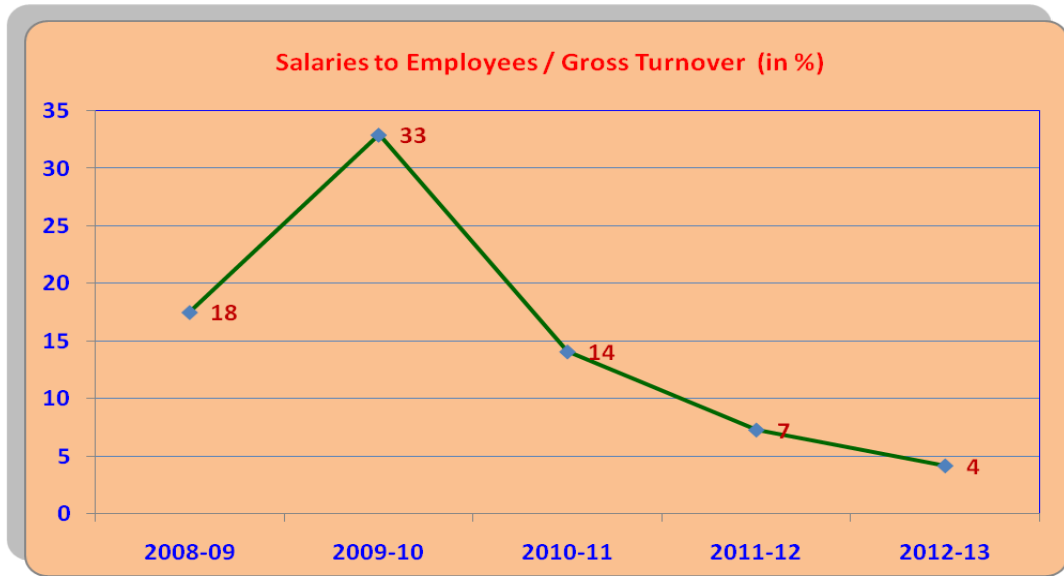
Table 7.5

(Rs.)						
Sl. No.	Details	2008-09	2009-10	2010-11	2011-12	2012-13
1	Salaries to employees / turnover	18	33	14	7	4
2	Administrative and General Expenses / turnover	11	21	14	6	5
3	Interest on loan / turnover	60	91	27	56	53
4	Guarantee Commission to GoK (Net) / turnover	39	50	3	0	0
5	Total expenditure / turnover	161	244	81	77	71

7.7.1 Salaries V/s. Gross Turnover

The salaries to turnover has been compared for the five years. It is observed that, the salary expenses V/s turnover is at 18% for the year 2008-09, which increased to 33% during the year 2009-10 and decreased by 14% for the year 2010-11. Further, as on 2011-12, there was decrease as low as 7% indicating a high turnover and low salary expenses. Similarly, the salary expenses further decreased to 4% as on 2012-13. The comparison of Salaries V/s. Gross Turnover for the last five years is represented graphically.

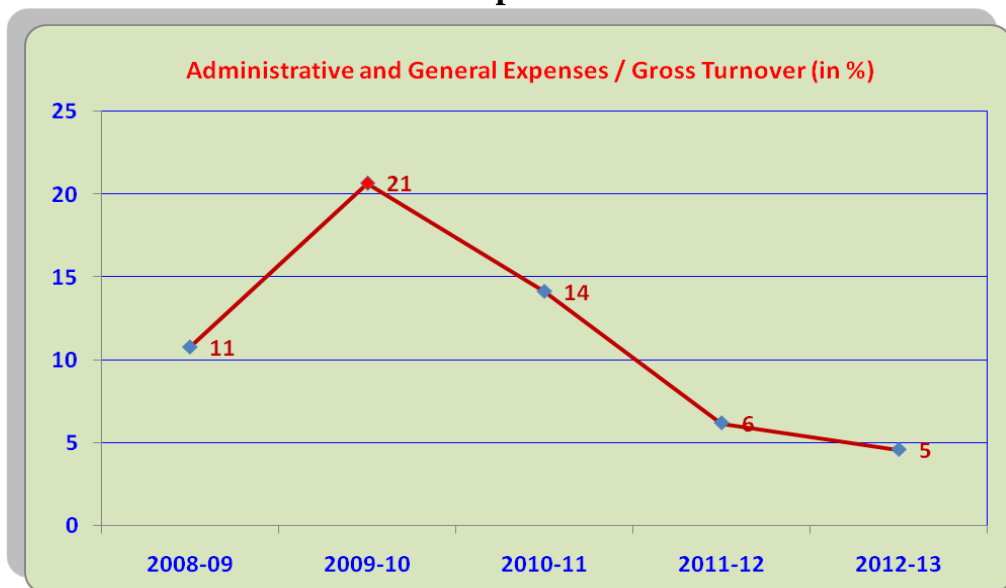
Graph - 7.5



7.7.2 Administrative and General Expenses / turnover

The Administrative and General Expenses/Gross Turnover has been compared for the five years. It can be observed that, administrative and general expenses against the gross turnover was at 11% for the year 2008-09, which increased to 21% during the year 2009-10 and decreased to 14% as on 2010-11. Further, the percentage decreased steeply as low at 6% for the year 2011-12 and 5% for 2012-13 indicating a high turnover and low administrative expenses. The comparison is represented graphically.

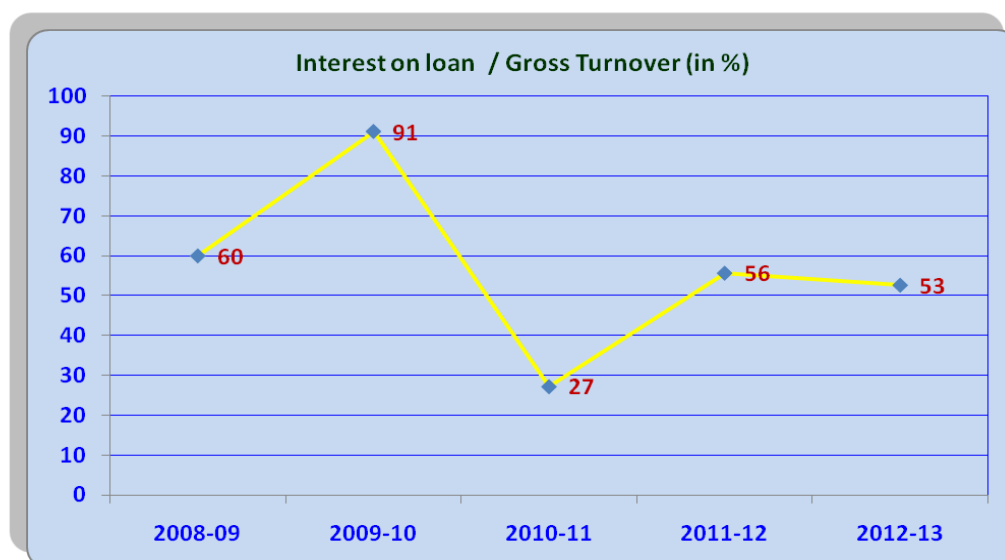
Graph - 7.6



7.7.3 Interest on Loan V/s. Gross Turnover

The Interest on Loan / Turnover has been compared for the five years. It can be observed that, the ratio of interest on loan V/s turnover is recorded at 60% for the year 2008-09, which increased steeply up to 91% as on 2009-10 and decreased to 27% during 2010-11. For the year 2011-12 percentage increase was 56% and further decreased to 53% as on 2012-13. The comparison for the last five years is represented graphically.

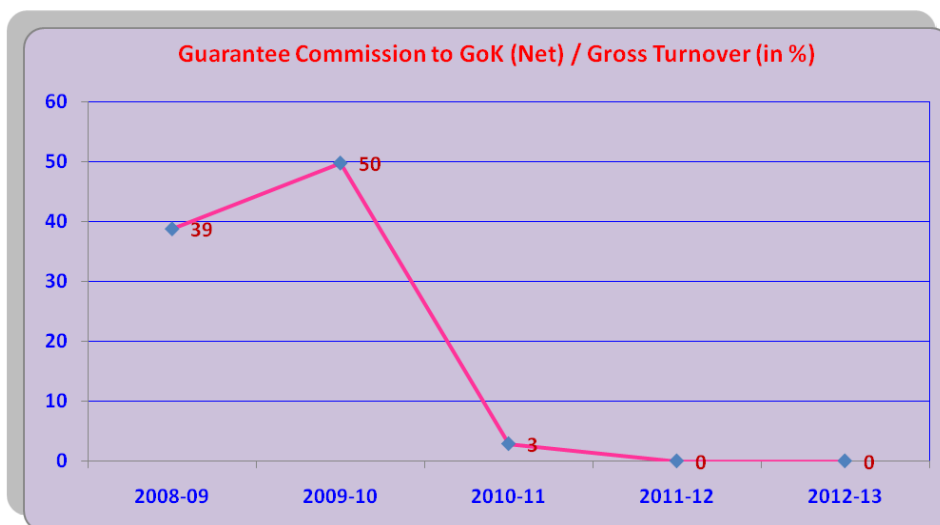
Graph - 7.7



7.7.4 Guarantee Commission to GoK V/s. Gross Turnover

The Guarantee Commission to GoK / Turnover has been compared for the five years. It can be observed that, the percentage of commission paid against the turnover is at 39% for the year 2008-09, which increased up to 50% for the year 2009-10 and decreased steeply to the level of 3% for the year 2010-11. For the year 2011-12 & 2012-13 there was no expenditure incurred on Guarantee Commission payable to GoK. Accordingly, the same has been indicated as zero in these two years. The comparison for the last five years is represented graphically.

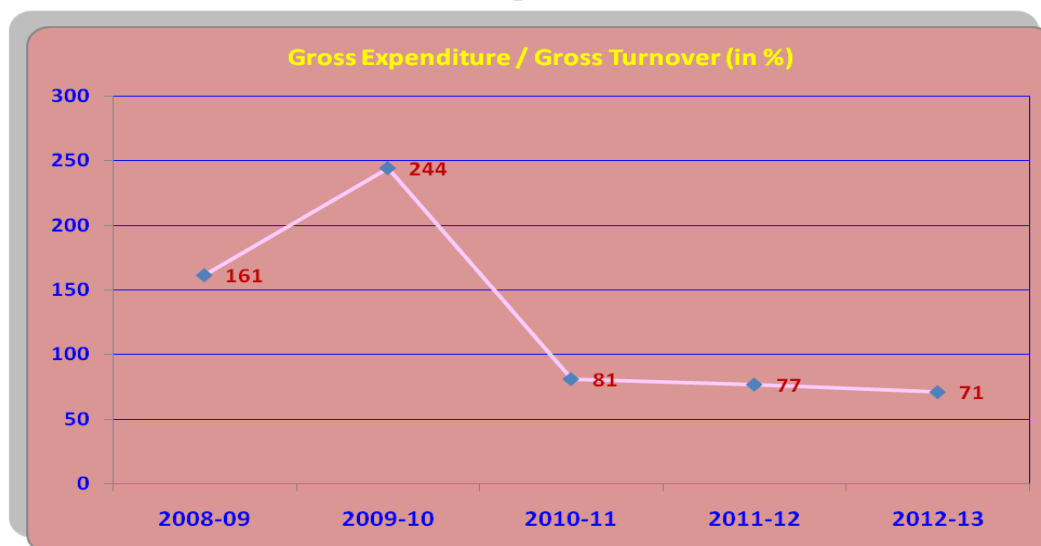
Graph : 7.7



7.7.5 Gross Expenditure V/s. Gross Turn over

The Gross Expenditure V/s. Gross Turnover has been compared for the five years. It can be observed that, the percentage of total expenditure against the turnover works out to 161% for the year 2008-09, which increased steeply up to 244% for the year 2009-10 and decreased up to 81% for the year 2010-11. Further, the percentage decreased up to 77% for the year 2011-12 and 71% as on 2012-13. The comparison for the last five years is represented graphically.

Graph : 7.8



7.8 Balance Sheet Analysis

The authorized share capital of the Company is Rs.20,000 lakhs and paid up share capital is also Rs.20,000 lakhs.

The balance sheet has been compared for the last five years and furnished in Table – 7.5. The networth of the company which was about Rs.1434 crores as on 2008-09 decreased to Rs.162 crores during 2012-13. This indicates that, the networth has been eroded heavily during this period. The current ratio which was 2.89 during 2008-09 increased to 3.85 during the next year and increased to a maximum of 5.90 during 2010-11. However, there has been steep decrease in CA 1.04 as on 2011-12 and the same trend continued even during the year 2012-13 indicating a value of 1.05.

Detailed analysis of Balance Sheet and financial ratios for last five years (2008–09 to 2011-12) are furnished in the Table-7.5

Table-7.5 : Balance Sheet Analysis

(Rs.Lakhs)

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
A	Sources of Funds					
I	Shareholders funds					
	Share capital	20,000	20,000	20,000	26,000	26,000
	Advance Against Equity	48,501	61,741	78,659	-	-
	Unutilized Governments Grants	26,152	59,259	57,969	-	-
	Loan Funds	48,739	39,079	30,535	-	-
	Reserves & Surplus		-	-	(10,758)	(9,778)
	Total –I	1,43,392	1,79,979	1,87,163	15,242	16,222
II	Non Current Liabilities					
	Long term borrowings	-	-	-	14,777	13,784
	Deferred tax liabilities	-	-	-	2,825	3,168
	Long term provisions	-	-	-	43	76
	Total –II	-	-	-	17,645	17,028

Table-7.5 : Balance Sheet Analysis (contd...)

(Rs.Lakhs)

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
III	Current Liabilities					
	Trade payables	11,871	6,226	9,308	6,560	4,193
	Deposits from Contractors	17,562	13,673	10,871	-	-
	Other current liabilities	36134	32,360	11,481	1,98,407	1,41,387
	Short term provisions	-	-	-	4,462	4,751
	Provisions for Fringe Benefit Tax	3	-	-	-	-
	Total (III)	65,570	52,260	31,660	2,09,429	1,50,331
	Total –A (I+II+III)	2,08,962	2,32,339	2,18,824	2,42,315	1,83,581
B	Application of Funds					
I	Fixed Assets					
	Tangible assets	18,419	19,068	21,268	22,272	24,257
	Intangible assets	-	-	-	-	-
	capital work in progress	4,643	2,475	1,561	754	813
	Intangible assets under development	-	-	-	-	-
	Fixed assets held for sale	-	-	-	-	-
	Total (I)	23,062	21,543	22,829	23,026	25,070
II	Non-Current Assets					
	Non current Investments	-	-	-	-	-
	Deferred tax assets (net)	-	-	-	-	-
	Long term loans and advances	-	-	-	813	1,398
	Other non current assets	8,500	9,438	9,153	-	-
	Total (II)	8,500	9,438	9,153	813	1,398
III	Current Assets					
	current Investments	-	-	-	-	-
	Inventories	-	-	-	-	-
	Trade Receivables under financing activity	-	-	-	-	-
	Cash and Cash equivalents	51,115	72,071	42,060	79,507	68,584
	Short term loans and advances	1,22,390	1,24,718	1,39,190	7,059	5,432
	Other current assets	292	247	598	1,31,910	83,096
	Capital Advances towards land	3,603	4,322	4,994	-	-
	Total (III)	1,77,400	2,01,358	1,86,842	2,18,476	1,57,112
	Total –B (I+II+III)	2,08,962	2,32,339	2,18,824	2,42,315	1,83,580

Table-7.5 : Balance Sheet Analysis (contd...)**(Rs.Lakhs)**

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
	Capital employed					
	Total assets	2,08,962	2,32,339	2,18,824	2,42,315	1,83,580
	Less current liabilities	65,570	52,260	31,660	2,09,429	1,50,331
		1,43,392	1,80,080	1,87,164	32,886	3,3249
	Net worth	1,43,392	1,80,080	1,87,164	15,242	16,222
	Equity	20,000	20,000	20,000	26,000	26,000
	Ratios	-	-	-	0.57	0.53
	Current ratio CA/CL	2.71	3.85	5.90	1.04	1.05

7.9 Comments of Principal Accountant General, Karnataka, Bangalore

The accounts of KRDCCL is audited every year by Principal Accountant General, Karnataka, Bangalore and audit reports are submitted to KRDCCL for needful action. There are no major observations made by AG in their Audit Report for the last five years (2008-09 to 2012-13), which is the reference period for study.

** **

Chapter-8 : Assessment of Overall Performance

The Government of Karnataka is actively encouraging investments in the infrastructure sector. Various sectoral policies for roads, ports, tourism, industrial developments etc., have been announced by the State. These policies include fiscal incentives and concessions for the private entrepreneurs intended to do business in Karnataka. At the same time, Government of Karnataka has also been increasing budgetary allocations from time-to-time for stepping up the level of expenditure in these sectors. It has been in forefront for improvement of road infrastructure across the State and has been able to expend substantial amount on improvements of roads through various departments / enterprises coming under its administrative control including KRDCCL.

It is noted that, in the year 2001, the IRC at the behest of MORTH prepared “The road development plan vision 2021”, in which it was envisaged the necessity of coordinating approach to develop an integrated Transport Policy and recognize development of road infrastructure as the key element to promote tourism and provide access to mining areas, power plants, ports etc., The vision plan also emphasizes major issues viz., Budgetary allocation for road sector particularly on national highway & state highway, reservation of road assets improvement of village connectivity roads, improving capacity of roads etc,

Government of Karnataka is also envisaging to have atleast a total length of 40,000 km roads comprising NH & SH by the end of 2020. This will comprise providing, widening SH to Two lane & also MDR, providing renewal surface for SH & MDR every five years, preparation of master plans for improvements of SH & MDR. Karnataka Road Development Company Limited is in the forefront in implementing various road projects by the State as per the above said vision plans.

The overall performance of KRDCCL in terms of project selection, project planning, project preparation, implementation, fund allocation, project maintenance, steps followed in selection of contractors, monitoring mechanism adopted etc., are enumerated in the following paras :

8.1 Project selection

Currently, projects are implemented as per the demand and requirements. KRDCL has been putting efforts various strategies to be adopted in selection of road projects. KRDCL is adhering to IRC Standards while implementation of new roads, widening of existing road, construction of bypass roads etc..

By and large projects are selected & implemented as per the demand and requirements, still there is scope for improvements in methodology in selection of road projects.

8.2 Land acquisition, environment clearances and shifting of utilities

KRDCL is following the required procedures in land acquisition and getting requisite clearances from environment department before start of the projects. It is speeding up land acquisition process for various road projects. It is also coordinating with different departments for speedy implementation of road projects. While preparing the cost estimates efforts are made to include cost of shifting of utilities coming under the projects proposed. It can be noted that, a separate R&R cell is established at KRDCL which is headed by Assistant Commissioner (Revenue) to sort out land acquisition and other issues.

8.3 Project Preparation

Detailed Project Reports are prepared through its selected project engineering consultants. The DPRs would be based on detailed tests like CBR of sub-grade, Benkleman Beam Deflection (BBD) study, projection of traffic to designed life and proper drainage, planning of cross drainage works appropriately wherever required. Overall DPRs. prepared by KRDCL considers the following :

- Traffic study to ascertain the volume of traffic and projecting the same to the design period say 10/15 years life.
- Checking the strength of sub-grade and conducting deflection tests in case of existing pavements to assess thickness of the overlay.

8.4 Fund Allocation

KRDCL is putting efforts to complete the road projects within the budget allocation. However, there is mismatch between actual cost required compared to amount sanctioned under administrative and plan approvals.

8.5 Project implementation and monitoring

KRDCL is utilizing its resources to the best possible way while implementing and monitoring its various road projects. The road projects are implemented with proper planning scheduling and coordination. It is adhering to well developed project management methods while implementation of roads. Currently, most of the designs for road projects would be approved prior to construction stage. Quality checks are carried out through the appointed project management consultants, who specify appropriate quality measures in execution of the works.

8.6 Projects on PPP mode

KRDCL is implementing some projects under PPP mode. However, there is poor responsiveness to PPP invitation. There is need for giving out government lands all along the roads to the PPP concessioner for development as motels, restaurants, eat-outs, rest house etc., These provisions in PPP mode projects would enhance life cycle benefits and would attract more such projects under PPP mode.

KRDCL is getting most of clearances and also shifting of utilities before beginning of the project. Though, number of projects are not too many under PPP mode, however, transparent procurement processes are followed for selecting the PPP developers.

8.7 Deployment of Man power and provisions for adequate training etc.,

Currently, engineers are deputed from PWD including Chief Engineer. The Accounts Officers and staff are from either state accounts or PWD or on contract basis. KRDCL is deputing their engineers to acquire knowledge for training / refresher courses conducted at various reputed institutes.

The Engineers specialized in Highways with Post-graduation degree are deputed for implementation of road projects.

8.8 Corporate Social Responsibility

KRDCL is meeting its Corporate Social Responsibility requirement through full filling its objective as main implementing agency of various road projects across the State. It is improving and developing transport infrastructure comprising roads express ways, bridges etc., at the selected locations and improving the connectivity.

8.9 Working atmosphere

Working atmosphere and relations remained cordial in KRDCL over the years. The Company is receiving full co-operation and support from all its employees.

8.10 Socio-economic impact from road projects

KRDCL is implementing various road projects across the States and has been instrumental for socio-economic developments in the regions. The Road projects of have made positive impact on life style of the people particularly from villages interms of dress, food and drink habits due to the influence of urban life through connectivity of these roads. The quality of life has improved in terms of better health care, good educational facilities created adjoining road projects.

Many villages which were remote are well connected to the urban centres. This has helped the people to get good education facilities for their children, better medicare facilities, entertainment, availability of market for agri produce and also purchase of their daily needs. The road projects enhanced connectivity to the neighbouring districts and also to the interstates. Many roads have provided connectivity to the important tourist centres and have reduced peoples travel time and enhanced travel comfort.

The vehicular traffic has increased in such roads developed by KRDCL and KSRTC and also private vehicle operators have increased their number of trips, to various destinations providing increased services. There has been substantial reduction in vehicle operating costs due to improved road conditions. The improved roads have helped agriculturists in transporting their agri produce to the market places / factories in time due to better road conditions.

The road improvement has helped people in reducing their waiting and travel time to various destinations. There has been reduction in number of accidents after the roads have been improved by KRDCCL.

8.11 Potential to Create more Employment and increase in economic activities

Besides providing a vital link between centres of production and markets in economic sectors such as agriculture, industry, mining tourism etc., roads play a significant role in generating employment to the people and facilitating the fast movement of men and materials.

KRDCL is the company established for implementation and maintenance of various road projects across the State. The road projects of KRDCCL have provided employment opportunities to local people during the construction period and post construction period. The projects continue to provide employment during maintenance period in the future also.

There has been instances of shifting of cropping pattern from low yielding cereals to growing high yielding crops viz., fruits, vegetables etc., along road projects taken up by KRDCCL. Agriculture lands which are adjacent to road projects have been converted for residential and commercial usage and there has been significant increase in the land values to the land owners due to road projects.

After the road projects, by KRDCCL perishable and high value products such as fruits, vegetables, milk have secured a ready market at nearby taluk places and district places. This is because these perishable products are transported on these improved roads in a shorter time to the urban centres their by improving the income of rural people. Increase in growing more economic crops there has been substantial increase in generation of employment to the local people as well as for others.

8.12 Competing with other PSEs / Private Sector

KRDCL is thriving to compete with other similar players in Government/Private Sector. However, with liberalization of Indian economy, the competition has further increased due to more requirement of improved roads.

8.13 Particulars of MoUs with Department of Public Enterprises

KRDCL has entered into any Memorandum of Understanding (MoU) with Department of Public Enterprises, Government of Karnataka.

** **

Chapter-9 : Benchmarking with similar organizations

During the course of the study, efforts have been made to benchmark the performance of KRDCCL with similar organizations. For the study, comparison is made with Madhya Pradesh State Road Development Corporation, which is making a good progress in creating road infrastructure for its State. The Comparison has been made in terms of different parameters viz., shareholding pattern, gross turnover, earning / share, manpower cost, expenditure/ turnover, institutional developments, type of projects undertaken, number of projects under PPP mode, special innovative projects, adoption of new financial models in revenue mechanism, work culture, quality measures, sustainability etc., The details are furnished below :

9.1 Road Status before formation of Road Development Corporations

Before formation of Road development corporations generally, there was bad conditions of roads and also roads were poorly maintained in the States considered for comparative study i.e. Madhya Pradesh & Karnataka.

- In the States above mentioned, particularly, Madhya Pradesh was known for the bad conditions of roads and their poor maintenance.
- Roads used to have improper designs based on traditional approach.
- In every state, generally there was budget driven construction methodology in place of demand driven
- Poor fund flow for the projects – low budget outlay
- **Result : poor connectivity, low industrial investment, sluggish business growth.**

9.2 Transition to new regime

The respective governments embarked upon a programme to revamp the road infrastructure through formation of road development corporations enabling raising funds for speedy implementation of road projects.

- **Madhya Pradesh** Government revived a Special Purpose Vehicle viz., M.P Rajya Sethu Nirman Nigam Ltd., (MPRSNN) during December 2000 and gave the mandate to it for upgrade highways on PP format. Madhya Pradesh Infrastructure Investment

Fund Board (MPIIFB) was created mainly to arrange for the funds in terms of grants for the projects. An amount Rs.500 crores was earmarked initially for this purpose and nearly 2000 kms. length roads were identified and developed in Phase-1.

- **In Karnataka**, Karnataka Road Development Corporation (KRDCL) was incorporated on 21st of July 1999 as a wholly owned Government of Karnataka Company as per the Provisions of the Company's Act, 1956. KRDCL is a company under the Public Works, Ports & Inland Water Transport Department. This Company was established to promote surface infrastructure by taking up Road Works, Bridges etc., and to improve road network by taking up construction widening and strengthening of roads, construction of bridges, maintenance of roads etc., and to take up projects on BOT, BOOT, BOLT.

Since inception Karnataka Road Development Corporation Limited has strived to improve the road network and to establish connectivity to all the nook & corner of the State.

9.3 Problems V/s. Strategies

- Before formation of Companies, the Status of infrastructure including roads was very poor
- The States were ranked low among the preferred investment destination due to poor infrastructure
- The concept of BOT was a new field
- Funding institutions were not coming forward to fund the projects as the acceptability of toll, commitment of respective governments and strength of the projects were looked upon with suspicion.
- Under the circumstances, the State Governments with proper marketing strategies could develop an investment climates in their states.
- Detailed study of roads was done to understand ground requirements for long term sustainability.
- Funding institutes were made to understand the political commitment and as a result many roads were upgraded on new concept of BOT / BOLT mode
- For implementing BOT / BOLT projects, Madhyapradesh is in forefront compared to Karnataka.

9.4 Institutional Developments

Stringent method of administration and strategic planning was adopted by the Companies as part of their institutional developments, to speed up progress of which projects and reduce overheads.

Madhya Pradesh :

- ◆ As per the suggestions of ADB, Madhya Pradesh Road Development Corporation (MPRDC) reduced staff strength related in reduction of overheads.
- ◆ Deployment of supervision and quality control consultant having international expertise helped in increase in the technical knowledge of MPRDC Staff.
- ◆ Provision were made for entry of outside contractors for ADB funded projects with introduction of advanced machinery & equipments
- ◆ Enhancement in the Capacity of the State Contractors, as they worked as Sub-Contractor in ADB funded projects. This has resulted in improvement in the progress and quality of other road projects of State, as these contractors executed projects using hightech and equipments.
- ◆ Development of environmental and MIS cell.
- ◆ Development of asset inventory management system.
- ◆ Reduced time in preparation of DPRs. Work completed generally in 13 to 15 months compared to normal period of 36–48 months. This has enabled MPRDC could save lot of money on account of this.
- ◆ Preparation of DPR in advance stages.
- ◆ Contractors considered as partners in their projects by MSRDC

Karnataka

- ◆ There is need for asset inventory management system at KRDC
- ◆ Environmental cell is functional and there is scope for improvements. MIS cell is yet to be established.

9.5 Physical Performance (No. of projects completed/ongoing / proposed)

Sl.No.	Category of Roads	Completed	On going	Proposed
I	Projects under EPC			
	New projects			
a)	Roads	839 kms.	374 kms.	-
b)	Bridges	645 nos.	20 nos.	-
	Maintenance work	21,837 kms.	-	-
II	Projects under PPP mode		-	-
	New road projects			
a)	BOT-VGF (Toll) mode	197.60 kms.		
b)	DBFOT-VGF (Toll) mode	-	83 kms.	514.23 kms.
c)	Annuity mode	131 kms.	-	381 kms.
	Sub Total (a+b+c)	328.60 kms.	83 kms.	895.23kms.
	Maintenance of roads			
	Maintenance of roads under OMT mode	-	-	603 kms.

9.6 Experience in PPP and regular contract projects

- MPRDC, under PPP (BOT scheme), has completed 2,311 kms length of roads, 1579 kms length roads are under construction and 864 kms are under tendering stage with a total of 4,754 kms.

KRDCL has completed only 328.60 kms roads so far under PPP-BOT-VGF (toll) mode and another 83 kms are ongoing project under DBFOT-VGF (Toll) mode and another annuity mode, with a total of 895.23 kms. have been proposed under DBFOT-VGF (Toll) mode & Annuity mode BOT mode. Thus, total road under PPP/ BOT mode is 1306.83 kms.

- MPRDC, under ADB assistance has completed 3304 kms length of roads, 1080 kms length roads are under construction with a total of 4,384 kms.

KRDCL have not taken up road projects under ADB assistance, as such projects are taken up K-Ship.

- MPRDC, under regular contract projects has completed 1249 kms length of roads, 338 kms length roads are under construction with a total of 1587 kms.

Whereas KRDCL has completed 940 kms roads at different stretches across the state. Further, it has completed maintenance of over 20,000 kms length roads.

9.7 Work Culture

a) MPRDC

- Consultants appointed for works viz., feasibility report / DPR, financial closure supervision of construction etc.,
- Expertise services of legal adviser, company secretary, environment expert, MIS expert, road data system engineers are availed on contract basis
- Planning done at the head office level
- Bills cleared in 2-4 working days

b) KRDC

- Consultants appointed for feasibility report / DPR, financial closure and supervision of construction
- Experts like legal adviser, company secretary, are engaged on contract
- There is need for MIS expert, road data system engineers to be in place for better MIS and information dissemination.
- Planning done at the head office level

9.8 Quality Measures Adopted during construction

a) MPRDC

- 3- tier system of checking adopted in projects
 - PMC of concessionaire / contractor
 - Independent quality control engineer
 - Officers of Department
- Field testing is mandatory as per the norms of MORTH
- Graders used for maintaining the camber at sub grade/GSB level
- Sensor pavers used in place of mechanical paver for BT works
- RMC plant used in place of normal concrete mixers

b) KRDCCL

- There is also a systematic approach being adopted by KRDCCL to ensure quality in the projects
- Field testing is mandatory as per the norms of MORTH

9.9 Quality During maintenance**a) MPRDC**

- Roughness Index is the criteria for maintenance of BOT roads
- For regular contract and ADB funded roads, generally there would be provision for maintenance guarantee for one year is kept.
- Performance based maintenance contract are being awarded for maintenance of projects, in post defect liability period.
- Completed State Highways under ADB & Regular contract are being taken up on Operation, Maintenance and Tolling mode

b) KRDCCL

- For regular contract, one year maintenance guarantee provision is kept
- Not taken up roads under ADB assistance
- Performance based maintenance contract are being awarded for maintenance of projects.
- More works on Regular contract being taken up for Operation, Maintenance and Tolling mode

9.10 Sustainability**a) MPRDC**

- An exclusive State highway fund has been created
- Separate division for the maintenance of roads in the organization
- OMT system being introduced for maintenance of roads and revenue generation.
- Innovative financial models are being introduced for new PPP projects
- Annual maintenance plans being proposed for each road and strict adherence ensured

b) KRDCCL

- No separate State highway fund is created
- No separate division for the maintenance of roads in the organization
- OMT system being introduced
- Very few innovative financial models for new PPP projects
- Annual maintenance plans being proposed for each road .

** _ **

Chapter-10: SWOT Analysis

In the earlier chapters, background of KRDCCL organizational setup, human resources, financial and physical performance, utilization of resources and other aspects were presented. Based on the above, SWOT analysis of KRDCCL is presented :

10.1 Strengths

- ◆ Wholly-owned Government of Karnataka enterprise established for speedy development of road projects in Karnataka
- ◆ Since its inception, it has taken up strengthening and widening of roads of close to thousand kms. and constructed more than 1000 bridges.
- ◆ It is known for maintenance of roads and has completed around 22,000 kms. of roads under annual maintenance.
- ◆ Technology adopted for roads are as per modern national highway standards and MORTH specifications.
- ◆ Quality of roads undertaken by the company are having standards and maintained quality as expressed by the road users
- ◆ Has full pledged staff including Engineers, accounts officers, environmental engineer etc., It has network of five divisional offices headed by executive engineers at Hubli, Gulbarga, Hassan, Mysore and Davanagere to take up and monitor the roads.
- ◆ Quality of road projects by the company, as contractors execute the projects using modern equipments and machineries.
- ◆ Enhancement in the capacity of procurement section in evaluation of technical and financial bids particularly tedious contracts

10.2 Weaknesses

- * KRDCCL do not have assets and structures of its own. The ownership of the properties lies with PWD and hence it cannot mortgage, lease any such properties for raising loans from financial institutions to take up more projects.
- * It is constrained from collection of toll and service charges, after development of roads, as these would be transferred alongwith the other structures to PWD.
- * It is highly dependent on Government grants for taking up road projects and the income is only from interests earned on such deposits and grants. There is no independent revenue generation system in place.
- * Almost all the employees are on deputation from PWD, State Accounts etc., and it has very limited staff of its own.
- * Has not undertaken many projects under PPP mode.
- * Revenue from the projects is very negligible and main income is from interests earned on deposits.
- * Not taken-up revenue generating projects viz., modernization and computerization of border check posts, toll plazas, toll roads, toll + annuity roads as prevailing in other states such as Maharashtra, Gujarat, Madhya Pradesh etc.,

10.3 Opportunities

- ◆ To take up projects under ADB assistance
- ◆ More number of projects under BOT / BOLT/PPP mode
- ◆ Modernization and computerization of border check posts, toll plazas to enhance income for the organization
- ◆ Development of more roads under toll, toll + annuity model as prevailing in other states
- ◆ To take up projects such as formula-1 racing track which are generally income generating in nature.

- ◆ Development of Asset Inventory Management System (AIMS)
- ◆ Enhancement in the capacity of procurement section in evaluation of technical and financial bids

10.4 Threats

- ♣ Decrease and non-availability of funds support over the years from Government for taking up new road projects.
- ♣ Due to non-availability of exclusive state highway fund, it is constrained from taking up new projects in the event decrease/stoppage of government grants.
- ♣ Threat of closure due to decrease in grant support / deposits from Government.
- ♣ Competition from K-Ship programme projects and other organizations for taking up road projects.

** _ **

Chapter-11 : Capital Restructuring & Possible Divestment

- 11.1 KRDCCL do not have exclusive road fund of its own for taking up various projects. Currently, it is undertaking road projects entrusted from PWD. Also funds for such road projects are provided by PWD in the form of grant. In some occasions KRDCCL has availed loan from HUDCO for road projects, wherein government / PWD stand guarantee. Generally, after implementation of the road, they would be transferred to PWD for further maintenance. Under the circumstances KRDCCL do not have any authority to collect tolls from producers from such projects. Majority of the projects are regular contract type got executed by KRDCCL and transferred to PWD.
- 11.2 Currently, KRDCCL do not have ownership of roads, any structures, checkpoints of its own as the mandate of ownership lies with PWD. As the organization do not have assets of its own, it cannot raise funds from financial institutions for taking up road projects.
- 11.3 It would be feasible to create exclusive road fund for KRDCCL and changing the mandate for ownership of the assets in the name of the Company. This would enable to take up more number of road projects by borrowing loans from financial institutions viz., ADB, World Bank etc., Having ownership of assets including toll plazas, border checkpoint KRDCCL could improve its revenue generation through collecting tolls and road user charges from the projects it develop on its own. The toll and road user charges could also be revised from time to time enabling increased revenue generation and also providing better services to the road users / public through quality maintenance.
- 11.4 By changing the mandate and having transferred the assets in its name, KRDCCL even could jointly take up road projects with potential private investors after entering into appropriate memorandum of understanding. KRDCCL may identify traffic worthy and potential roads for inviting private participation under PPP mode. There is need for adopting and experimenting different finance models encouraging private sector participation through PPP.

** _ **

Chapter-12 : Action Plan for Improving Efficiency of the Company

As indicated earlier, the overall performance of the Company is though satisfactory, there is still scope for improvement. There is need for improved road infrastructure in the State. Improved roads and other infrastructure facilities enable the State to attract more industrial investment. Due to the globalization in the market, it has become inevitable for the Company to improve the quality of roads and also take up more number of such projects. The following are the broad suggestions for improving the efficiency of the Company.

- The Company is constrained in taking up road projects under BOT / BOLT/ PPP mode, as it cannot collect toll charges from every road it develops. This is because the ownership of roads and other infrastructure lies with the Government / PWD. It cannot lease, rent or partner with other companies for taking up more remunerative projects. It is suggested that, Government may allow KRDCCL to independently charge and collect toll for various potential roads developed by it.
- It is suggested that, Government shall earmark some roads exclusively for KRDCCL for independent development and revenue generation.
- Once the total assets are transferred in the name of KRDCCL an asset inventorization and management system may be established for day-to-day monitoring the operations, administration, revenue generation etc.,
- It is suggested to identify traffic worthy roads who can give better returns and more attractive to the investors.
- More awareness to be created among public about the road projects developed by KRDCCL
- There is need for taking up more number of PPP projects viz., toll, toll+annuity projects for improving the financial performance of the Company.
- There is need for introduction of different financial models for better sustainability
- KRDCCL has its staff mainly on deputation from PWD and other Departments, who stay for a short term. Under the circumstances, they may not able to involve on long term perspective while implementation. Under the circumstances, it is suggested that, KRDCCL may have its own staff .

- There is need for development of in-house expertise for various projects. This will enable Company to save some costs spent for consultancy/outsourcing etc.,
- There is need for improvements in getting DPRs prepared at fast pace. Deployment of supervision and quality control consultants with international expertise would help the organization in increasing technical knowledge for their staff.
- Entry of outside contractors who are equipped with advance machinery and equipments would enable to complete projects within the schedule time at expected quality.
- Need for enhancement in the capacity of procurement section in evaluation of technical and financial bids for contracts of civil works.
- It is suggested that, KRDCCL shall take up developing border check posts at strategic locations. This will enable KRDCCL to increase its revenue, control overloading and damage to state roads due to heavy loading, to reduce unauthorized entries and to provide full transparency.
- Border checkpoint development is an integrated project for Transport, Commercial Tax, Forest, Mining and also KRDCCL which will benefit each department mutually and also check posts serve as facilitation centres.
- It would be appropriate create a state highway fund exclusively for this purpose.
- A separate division for the maintenance of roads need to be formed and for each road a strict adherence should be ensured.
- Innovative financial models are required to be introduced for new PPP projects.
- It is suggested that, the funds currently provided under VGF may be increased upto 50% (on total cost of project) instead of existing allocation of 40% maximum. This will act as the sweetener to the project and would be more attractive from the point view of private investors.

** __ **

Chapter-13 : Conclusions & Recommendations

13.1 Conclusions

- The Indian economy is growing fast. It is required to facilitate the growth of economy by providing proper infrastructure viz., roads, bridges, ports, industrial areas, etc.. Road infrastructure plays a very important role in improving the economy of any region.
- Development of superior infrastructure including roads, require colossal investments and also, the gestation period is long for returns from these type of projects.
- Due to these limitations, investments are not forthcoming from the private sector. Under such circumstances the role of Government assumes lot of significance.
- To improve the pace of economy in through infrastructure development including roads, may states essential their own road development Companys, including Karnataka.
- KRDCL is fulfilling the objective of construction of roads either on EPC or PPP mode.
- KRDCL has a pool of technical staff both at Head Office and its branch offices and in a position to take up new projects.
- The main strength of the company is that, it is a Government owned company and has highly be qualified technical staff.
- KRDCL under takes roads and bridges projects on both (i) EPC (ii) PPP mode. Under EPC mode, it has constructed 839 km. roads and 374 km length of roads, are under construction. It has completed 645 bridges and proposed 394 new bridges under EPC contract system.
- KRDCL though not much progress is made, however it is gently progressing in this direction. Under PPP mode, it has constructed 333 km. roads, 157 km length of roads are ongoing projects and roads with a total length to 2500 km are proposed.

- KRDCCL is known for taking up maintenance of roads. Since inception, it has completed annual maintenance of roads having total length over 21000 km.
- KRDCCL do not have assets of its own. As it has no assets of its own, it can not raise loans from financial institutions by pledging.
- It has no mandate to own any assets and structures. Once the roads are completed, they would be transferred to Government / PWD, for further maintenance.
- KRDCCL is constrained from collecting total charges from the projects it develop as it is not mandated to do so. Hence, there is no income from the projects. The income is only in the form of interest earned on short term deposits and service charges collected.
- The company do not have exclusive State Highway fund, as prevailing in other States. It is highly dependent on Government funds / assistance for taking up projects.
- Because of variations in sanction of grants from the Government every year due to fluctuations in short term deposit contribution, there is also fluctuation in accrual of interest income to the company. It is observed that, the profit & loss account which shown negative figures during the initial period (2008-09 & 2009-10) change to positive trend from 2010-11 to 2012-13. This indicates that, during these three years there was much short term deposits made from the government and also accrual of interest income.
- The analysis of profit and loss account of the Company for the last five years (2008-09 to 2012-13) indicates that, the company has been able to make profit only for the last three years i.e. during 2010-11, 2011-12 and 2012-13. During these three years profit after taxes was Rs.285 lakhs, Rs.931 lakhs and Rs.980 lakhs respectively. It incurred losses to the extent of Rs.565 lakhs and Rs.948 lakhs during the years 2008-09 and 2009-10 respectively. It is observed that, due to heavy losses in the previous years, there was no net amount carried to balance sheet in all the five years (2008-09 to 2012-13), which is the reference period for the study. The positive trend in the profit & loss account of the company was mainly due to increase in interest earned on short-term deposits. During the last three financial years there was more deposit contribution from the Government to the Company and hence it could earn interest accordingly.

- The comparison of Gross Turnover V/s. Gross Expenditure for the last five years indicates that, the gross expenditure is exceeding the turnover during 2008-09 and 2009-10. However, there has been a reverse trend and turnover is exceeding the gross expenditure during 2010-11,2011-12 and 2012-13.
- Return on Capital Employed which was negative during the first two years turned positive and increased upto 5.01% as on 2012-13. Return on equity also which was negative during the initial two years also became positive and increased upto 6.41% as on 2012-13. Earning / share which was negative during the first two years became positive from 2010-11 and increased upto Rs.0.06 as EPS as of 2012-13.
- Analysis of Balance Sheet for the last five years indicate that, the networth of the company which was about Rs.1434 crores as on 2008-09 decreased to Rs.162 crores during 2012-13. This indicates that, the networth of the company has been eroded heavily during this period. The current ratio during 2008-09 was 2.89 increased to 3.85 during the next year and further increased to 5.90 during 2010-11. However, the trend reversed and there has been steep decrease in current ratio to as low as 1.04 as on 2011-12 and the same trend continued even during the year 2012-13 indicating a value of 1.05.
- The comparison of performance of KRDC is made with that of MPRDC in terms of projects completed, under construction and proposed projects. The comparison indicates that, MPRDC is more progressive as for as road projects are concerned.
- KRDC has taken up some projects under PPP/BOT mode. Under different PPP / BOT mode it has developed 328.60 kms. roads, 83 kms. roads are in progress and roads with a total length of 895.23 kms. are proposed. Further, under PPP/BOT mode (OMT) the company has proposed for annual maintenance of 603 kms. length covering various stretches across the State and all put together a total length of **1306.83 kms.**

In respect of MPRDC, the projects under BOT scheme comprise (i) 2,311 kms length of roads completed (ii) 1579 kms. length roads are under construction and 864 kms are under tendering stage with a total length of **4,754 kms.**
- Further, MPRDC, under ADB assistance has completed 3304 kms. length of roads and 1080 kms. length roads are under construction with a total of **4,384 kms.**

However, KRDC have not taken up road projects under ADB assistance, when compared to MPRDC.

- By MPRDC, under regular contract projects, 1249 kms length of roads are completed and 338 kms. length roads are under construction with a total of **1587 kms.**

Whereas under regular contracts, KRDC has completed only **940 kms.** roads at different stretches.

- Comparing the institutional developments, at MPRDC there is reduction in staff strength particularly of deputationists resulting in reduced overheads, deployment of quality control consultants with international expertise helped in increase of technical knowledge of Staff, provision for entry of outside contractors for ADB funded projects with introduction of advanced machinery & equipments, enhancement in the Capacity of the State Contractors in achieving quality projects. Development of environmental & MIS cell, development of asset inventory management system etc.,

In respect of KRDC, there is also an environmental cell headed by Environmental Manager and there is scope for strengthening it as a full pledged cell. There is need for asset inventory management system for accounting the details with respect to assets as part of MIS. As such KRDC has MIS information system, however, the same may be strengthened to function more effectively.

- MPRDC : During construction, quality measures are adopted comprising: 3- tier system of checking by PMC of concessionaire / contractor, Independent quality control engineer & Officers of Department to check. Field testing is mandatory as per the norms of MORTH, Graders used for maintaining the camber at sub grade / GSB level, Sensor paver used in place of mechanical paver for BT works, RMC plant used in place of normal concrete mixers.

At KRDC also, quality measures are adopted for checking the quality of road at appropriate stages. Field testing is mandatory as per the norms of MORTH.

- In long run, sustainability of MPRDC is well ensured through various measures viz., Creation of State highway fund, separate division for the maintenance of roads in the organization, Introduction of OMT system, Innovative financial models for new PPP projects, annual maintenance plans for each road and strict adherence. All these measures ensure higher income to the company and less dependence on its state.

Whereas, KRDCCL is mainly dependent on grant from PWD / GoK for its regular road projects. There is no separate fund created for improvement of state highways and for the maintenance of roads. Currently, though OMT system is being introduced, however, there is scope for improvements in this regard. Introduction of all these measures would enable the company not to undergo cash losses and also there would be availability of funds for taking up new projects.

13.2 Recommendations

Based on the findings, conclusions and discussions had as part of the Study, the followings recommendations are suggested :

Short-term practicable recommendations

- To prioritize projects based on need and demand.
- To strengthen an environmental section as a full fledged cell.
- Introduction of asset inventorization and management system for day-to-day monitoring of the operations, administration, revenue generation etc.,
- Development of in-house expertise for various projects, will enable company to save some costs spent for consultancy/outsourcing. Deployment of supervision & quality control consultants having international expertise would help the organization in increasing technical knowledge for their staff.

b) Long-term practicable recommendations

- Providing/allotting government lands all along the roads at strategic locations for commercial development would enable PPP concessioner in increasing income from such projects. These provisions in PPP mode projects would enhance life cycle benefits and would attract more projects under this mode.
- Government may allocate traffic worthy roads to the Company for implementation under BOT/BOLT/PPP mode and allow to collect toll charges for creation of its own revenue base, which will ensure long term sustainability of the company.

c) Recommendations requiring change in policy

- Creation of separate State Highway fund would enable the Company to take up the projects independently without depending on government grant / deposits.
- Ownership of the roads and other assets shall be with the company enabling it to raise loans from financial institutions for taking up more and attractive projects by pledging the same.
- The company shall have its own permanent staff and it is desirable for less dependent on deputation staff for the works .
- Developing border check posts at strategic locations as prevailing in other states, would result in increased income to the Company. Indirectly, this will also help in control over loading and damage to the State roads due to heavy loading and reduce unauthorized entries.
- Taking up more number of PPP projects under various modes would enable the company to become less dependent on government grants and sustain on its own in the long run.

** _ **

Ongoing Bridges

Sl. No	Name of work	Name of the Agency	Est. Cost.	Contract Amount	Date of Commencement	Present Progress	Probable date of Completion	Expenditure upto 31.03.2014	Expenditure from 01.04.13 to 31.03.14	Expenditure during the year 2013-14	Cumulative Expenditure as on 21.05.2014	Balance Amt. required for 2014-15
I	Phase - II		38									
II	Phase - III		40.90									
1	2	3	4	5	6	7	8	9	10	11	9+10+11=12	13
1	Construction of Bridge at Km 11.00 km of Sagara – Pattaguppa Road in Hosanagar Taluk in Shimoga District	M/s. Consolidated Construction Co. Ltd.,	29.32	22.73 revised to 29.32	02.06.08	All foundation completed. Substructure Work is under progress.	31.12.2013	14.91	2.72	0	17.63	11.75
2	Construction of Bridge across Krishna near Jambagi in Bagalkote district	M/s. IVRCL Ltd.,	38.98	38.98	7.07.10	Foundation work completed. Substructure work is under progress.	31.07.2014	15.94	13.26	0	29.20	9.78
3	Construction of bridge across Thungabhadra river on Hospet-Shimoga road at 153.00 km in Honnali Taluk, Davangere District	M/s. ECC & I Ltd., Chennai	22.75	21.79	01.11.11	Substructure work under progress.	31.12.2014	1.61	5.25	1.33	8.19	13.6
4	Construction of bridge across Thungabhadra river on Harihara-Ranebennur road (SH-76) at 278.30 km near Harihara in Harihara Taluk, Davangere District	M/s. ECC & I Ltd., Chennai	19.88	19.88	01.11.11	Substructure work under progress.	31.10.2013	0.76	4.19	2.65	7.60	12.28

1	2	3	4	5	6	7	8	9	10	11	9+10+11=12	13
5	Construction of Bridge across Kumaradhara river on Subrahmanay - Udupi road	M/s. LOF Construc-tions	6.00	6.76	19.03.13	Foundation work in progress * 3 piers completed * 1 abutment completed * 6 girders completed	20.03.2015	0	0	0	0.00	6.76
6	Construction of Bridge near Mugali Village at km 3.60 on Mudenagudi – Karahatti – Kothabala – Mugali – Itagi – Soodi Road (MDR) in Ron Taluk, Gadag District	Shri. Venkata-subbareddy, Koppal	4.76	4.66	19.03.13	Bridge work completed and approach road work in progress	18.03.2014	0	4.5	0	4.50	0.16
7	Construction of three Bridges across tributary to Malaprabha river at km 25.40, 26.45 and 27.50 on Kotamachagi – Baradur Road in Ron Taluk, Gadag District (3 Nos.)	Sri.G. Mastanaiah, Nellur	4.97	5.04	19.03.13	Work is in completion stage	18.03.2014	0	5.19	0	5.19	-0.15
8	Constrn of 3 Bridges across Tributary to Malaprabha river near Itagi, Hirehalagundagi & Chikkalagundi Villages at km. 4.00, km. 6.4 & km. 4.80, on Hosahali-Itagi- Mushigere rd in Ron Tq, Gadag	Shri. Sridhara Raju,	6.56	6.73	19.03.13	Two bridges completed. Foundation work of 3rd bridge in progress.	18.03.2014 EOT up to Oct - 2014.	0.00	2.1	0	2.10	4.63

1	2	3	4	5	6	7	8	9	10	11	9+10+11=12	13
9	Construction of bridge across Shimsha River near Vaidyanathapura in Maddur Taluk, Mandya District	M/s. Structcon Engg. & Constructions Pvt. Ltd.,	15.44	18.24	30.05.13	Substructure in completion stage.	29.05.2015	0	2.69	0.99	3.68	14.56
10	Construction of Bridge across Garudachala River near Byragondalu in km 7.5 of Koratagere-Mavattur-Tondebavi road in Koratagere Taluk in Tumkur District.	Shri. M.N. Lokesh	4.75	4.39	04.03.13	Substructure in completion stage.	03.03.2014	0	2.4	0	2.40	1.99
11	Construction of Bridge across Cauvery river (Sosle) on SH-79 near T. Narasipura at 2.30 km of T.Narasipura - Sosle road in Narasipura Taluk, Mysore District.	M/s. Sharda Constructions	23.25	27.17	12.08.13	Super structure in completion stage.	29.05.2015	0	6.98	2.41	9.39	17.78
12	Construction of Bridge across Tungabhadra river near Sanyasi Kodumagge and Holalur connecting Shimoga	M/s. Sharda Constructions	28.40	26.29	01.08.13	i) Sub structure All foundation completed except abutment towards Holalur is under progress ii) Super structure Girders launched for 10 spans	31.07.2015	0.00	1.00	0.00	1.00	25.29
1	2	3	4	5	6	7	8	9	10	11	9+10+11=12	13

13	Construction of Bridge across Kapila River near Hejjige Village in Nanjangud Taluk in Mysore District	M/s. Tejas Supers-structures	13.80	15.31	08.01.14	Sub structure in completion stage	07.01.2016	0	0.8	0.91	1.71	13.6
SUB TOTAL - (A)			218.86	224.56				33.22	51.08	8.29	92.59	132.03
PHASE - III BRIDGES												
1	Construction of bridge near Nittur (B) on river Manjra on SH-34.	M/s. Gammon India Ltd.,	5.99	5.99	Sep-06	Approach work under progress.	Aug-14	4.98	0.28	0.19	5.45	0.54
2	Construction of High level bridge across Hirehalli at Km 37.10 of Kukanoor Mangalore road		3.45	3.45	Sep-06	WBM & BT work under progress.	Aug-14	3.02	0	0.28	3.30	0.15
3	Construction of bridge on Raichur -Arsangi road at Km 30.40		1.49	1.49	Sep-06	WBM & BT work under progress.	Aug-14	1.36	0	0.05	1.41	0.08
4	Construction of bridge on Ramdurga-Manvi Road at Km 205.00 (Km 6.27 on Manvi Chillarparvi Road)		1.82	1.82	Sep-06	Approach work under progress.	Aug-14	1.38	0	0	1.38	0.44
5	Construction of bridge on old NH road to SH via Bellur Cross at Ch.105.10 Km		1.35	1.35	Sep-06	Approach work under progress.	Aug-14	0.55	0	0.45	1.00	0.35

1	2	3	4	5	6	7	8	9	10	11	9+10+11=12	13
6	Construction of Bridge across Lakshmantheertha River (K.R.S Backwater near Sagarkatte)		27.31	27.31	Sep-06	Sub structure completed upto pier cap level	To be terminated	14.81	0	0	14.81	12.50
PHASE - IV BRIDGES												
1	RE-construction of bridge on Madikeri - Kutta Road across Lakshmanatheertha River at Ch.75.50 Km	M/s. Gammon India Ltd.,	1.70	1.70	Oct-07	Sub structure completed. Superstructure in progress.	Aug-14	0.7	0	0	0.70	1.00
SUB TOTAL - (B)			43.11	43.11				26.80	0.28	0.97	28.05	15.06
TOTAL (A)+(B) =			261.97	267.67			0.00	60.02	51.36	9.26	120.64	147.09

Ongoing Roads

Sl. No	Name of work	Name of the Agency	Est. cost	Length (km)	Contract Amount	Date of Commencement	Present Progress	Probable date of Completion	Exp. upto 31.03.14	Expenditure from 01.04.2013 to 31.03.14	Expenditure during the year 2013-14
1	2	3	4	5	6	7	8	9	10	11	12
1	Improvements to Mysore - Bantwal road from Ch. 148.50 to 220.40 (71.90 km) from Sampaje to Mani (Package-C)	M/s. KMC construction Co.,	203.25	71.60	176.62	21.12.2009	BC for 60.00 Km completed. Out of 212 CD, 190 completed	31.05.2014	63.28	54.51	17.91
2	4-laning Mangasuli - Lakshmeshwar (SH-73) between km 229 km to 248.40	M/s. GVR Infra Projects Ltd.,	155.54	19.08	119.10	30.04.2011	PQC for 12.45 Km completed,	Jun-14	7.11	20.59	2.43
3	Development of road for Kudlagi - Sandur to Thorangalu (SH-40)	M/s.GVR Infra Projects Ltd.	140.00	46.00	94.31	17.9.2011	PQC -9.67 km Out of 70 CD works, 15 Nos tackled 2 completed.	30.04.2014	10.23	7.09	0
4	Development of road from Hospet - Sandur (SH-49)	M/s.GVR Infra Projects Ltd.	96.50	27.00	70.60	17.9.2011	Work Completed	28.02.2014	42.2	28.49	2.02
5	Development of road from Konanur to Kushalnagar from km 5.00 to 22.63 km	M/s.IVRCL Ltd.,	47.67	17.63	42.35	24.10.2011	Work Completed	23.04.2014	17.88	25.48	1.16
6	Improvements to Additional approach road connecting from SH-67 (Highway connecting Mangalore with Athradi via Bajpe, Kattil and Kapu	M/s. Concord Construction	11.46	1.13	10.38	05.01.2013	Termination Notice has been issued to the Contracting Agency.	30.04.2014	0	0	0

Sl. No	Name of work	Name of the Agency	Est. cost	Length (km)	Contract Amount	Date of Commencement	Present Progress	Probable date of Completion	Exp. upto 31.03.14	Expenditure from 01.04.2013 to 31.03.14	Expenditure during the year 2013-14
7	Improvements to road from Honnali town to Honnali taluk border from km 168.500 to km 185.500 in SH-48 and km 37.450 to km 62.050 in SH-26 in Davanagere District	M/s. DRN Infrastructure	131.00	44.25	113.86	27.06.2013	14 Km out of 44.25 Km completed.	26.06.2015	0	15.03	3.64
8	Improvements to Wanmarpalli – Raichur road (SH-15) from ch.227.00 to 255.00 km i.e., Khanapur cross to Kollur road for a length of 25.55 km in Yadgir District	M/s. DRN Infrastructure	66.51	25.55	55.35	17.06.2013	11 Km out of 25.55 Km completed. 2 out 11 box culverts completed.	16.06.2015	0	7.33	3.65
9	Improvements to road from Wanmarpalli to Raichur road (SH-15) from Ch. 260.160 to 267.934 km in Raichur district	M/s. DRN Infrastructure	19.780	7.23	17.79	23.07.2013	11 out of 15 pipe culverts completed.	22.04.2014	0	0.35	0
10	Improvement to road from Sindhanur-Kushtagi via Tawargera (SH-30) – for a length of 64.30 km	M/s. DRN Infrastructure	139.27	64.30	154.59	06.06.2013	25 out of 112 culverts completed	05.06.2015	0	3.42	0

11	Improvements to the existing road from Peeranawadi to Chorla (Goa Border) Consisting a length of 50.10km	M/s. PBI Constructions, Bhatkal	75.00	50.10	101.45	14-09-2007	Completed.	30.04.2013	89.29	4.45	0
TOTAL			1085.98	373.86	956.40			229.99	166.74	30.81	